VOL. 9
NO. 11

THE BRICKBVILDER

NOV.
1900

THE BRICKBUILDER.

PUBLISHED MONTHLY BY

ROGERS & MANSON,

85 Water Street, Boston, Mass. . . P. O. Box 3282.

Entered at the Boston, Mass., Post Office as Second Class Mail Matter, March 12, 1892.

Subscription price, mailed flat to subscribers in the United States and Canada	$5.00 per year
Single numbers	50 cents
To countries in the Postal Union	$6.00 per year

SUBSCRIPTIONS PAYABLE IN ADVANCE.

For sale by all newsdealers in the United States and Canada. Trade supplied by the American News Company and its branches.

ADVERTISING.

Advertisers are classified and arranged in the following order: —

Advertisements will be printed on cover pages only.

THE Thirty-fourth Annual Convention of the American Institute of Architects is to be held in Washington, D. C., Dec. 12, 13, 14, and 15. It is doubtful whether one American citizen in a thousand is aware of the fact that by December 12 it will be exactly one hundred years since the city of Washington was occupied as the seat of government, and the public festivities connected with the celebration of this anniversary will constitute an introduction to the convention. A very attractive program has been laid out. Among many others, two especially fertile themes for discussion are to be introduced. Mr. R. Clipston Sturgis is to present a report as chairman of a committee of conference with the Architectural League of America on "Competition, Codes, and Cooperation." The relative positions of the Institute and League have been discussed and closely considered during the past year, especially so at the enthusiastic meeting of the Architectural League of America, which was held in Chicago in June. It is very easy to misconceive the functions of either association, and the ardor which is so desirable a factor in all forms of organized endeavor can easily overestimate both the good and the undesirable qualities which go to make the total efficiency of such bodies as these. The Architectural League represents a distinctive phase of American architectural development. As such it is to be encouraged in every way, and is deserving of the support and sympathy of all who are interested in the growth of an honest, intelligent, and growing architecture. On the other hand, the Institute represents the conservative force, which is quite as essential as enthusiasm; it represents the restraining influence, without which zeal comes to naught, and it must always be remembered that without the long weary years of seemingly fruitless attempts that have marked the past of the Institute, such an organization as the Architectural League of America would not have been possible. We cannot personally feel that there is the slightest interference of field, or lack of most hearty cooperative sympathy between these two bodies, and the forthcoming discussion at the convention ought to be able to present the facts in such light that the two can be mutually benefited thereby. We need both elements. The American Institute cannot spare from its ranks the young men who have done such good work for the League. It is an honor for both to be associated. The results of the discussion, which Mr. Sturgis' report, we hope, will arouse, ought to be productive of lasting good to both the Institute and the junior society.

Another topic promises to be extremely interesting: "The Grouping of Government Buildings, Landscape, and Statuary in Washington," with an introduction by Mr. Joseph C. Hornblower of Washington, and papers by C. Howard Walker, Edgar V. Seeler, H. K. Bush-Brown, and Frederick Law Olmsted, Jr., followed by a discussion in which Wm. A. Boring, of New York, D. H. Burnham, of Chicago, Cass Gilbert, of New York, and Edward B. Green, of Buffalo, are expected to participate. This is an array of architectural talent which, when brought to bear upon a subject of this importance, is pretty sure to bring out many excellent ideas, and there certainly is abundant room for improvement in the present methods of grouping the buildings at Washington. This country is slowly, but, we trust, surely growing into an appreciation of the necessity for intelligent direction of its public buildings and highways, and in this connection we hope the Institute will see fit to take some action in regard to the proposed addition to the White House, which, if we may take the word of our contemporary journals, is being conceived in a manner calculated to greatly mar the beauty and effectiveness of the executive mansion.

THE various brick companies of New England are about to unite for the better management and control of the trade, and it seems a fit moment to urge the

advisability of a uniform standard of size for common brick. All older countries have seen the advisability of this, and have long ago established brick dimensions, which are closely adhered to throughout the country, but our brick-makers have merely a nominal size, which is in practice varied at will. The earliest brick made in this country followed the size then common in England, and when economy fixed on a slightly larger dimension, we did not fix a standard as England did, but allowed each firm to make such slight variations as it wished. The size was evidently regulated by the size and weight which a man could most readily handle all day long. The small brick of the eighteenth century were hardly a handful, and, consequently, were not economical, for the small size did not allow a man to lay a greater number in a day. The present dimension is about the extreme in size and weight which a man can handle quickly. The Dutch brick and the English brick are 4½ by 9 ins. The Dutch is about 2¼ ins. in thickness, while the English is 2¾ ins. Our brick are supposed to be 4 by 8 ins., and vary from 2¼ to 2½ ins. in thickness. The important proportion of header to stretcher is very carefully maintained everywhere but here; two headers and a joint equal one stretcher. Here hardly a common brick in the country can be found to answer this simple requirement. The pressed brick are naturally far more accurate, and, therefore, we find that common brick, neither bond nor course true with face brick. The objections to this looseness of dimension are twofold. From the builder's point of view, it makes it extremely difficult to lay any of the usual bonds with common brick, and yet present a wall which shall be workmanlike and sightly, with headers and stretchers aligning accurately. Such bonds as the English, or the English cross bond -- that which is in general use in Holland — are quite impossible, as two headers and a joint must make a stretcher in this bond. The difference in size between common and face brick has led to various expedients more or less questionable for obtaining bond. Blind bond, now pretty generally discountenanced, was once common enough. Wire ties have been used largely as a complete substitute for bond. This latter may be constructionally quite as good as a brick bond; but certainly from the architect's point of view, the bond which frankly reveals itself on the outside, shows the good construction, and gives architect and bricklayer a chance to show variety in design and skill in execution is preferable to the wall composed entirely of stretchers, which, however strong, will always look like a 4-in. skin. It is almost needless to say what every right-minded designer or honest bricklayer ought to think of that whited sepulcher, so often seen to-day, — Flemish bond, composed of stretchers and batts. From the architect's point of view, it is not only the case as stated above, but there is also the annoyance of being unable to draw or figure accurately until he has ascertained the exact dimensions of the brick to be used. It would certainly be an advantage for the New England brick industry if they could now establish a uniform brick in true proportion. Such a brick, produced at the usual prices (or perhaps one may expect lower prices as the result of this trust), would certainly command the market here, and might perhaps be the pioneer in establishing a general uniform standard.

THE HILL OF POSILIPO, NEAR NAPLES, ITALY.

THE BRICKBUILDER presents this month as its frontispiece a view of the historic hill of Posilipo and the coast road leading to it from Naples. Few large cities are surrounded by such beautiful and storied scenery as is the picturesque metropolis of southern Italy. From the earliest times these shores have been the abode of seekers after repose and health as well as of humble toilers by land and sea, and the vine-clad slopes have sheltered palace and villa as well as hut and farm.

The hill of Posilipo, just west of and adjacent to the city proper, is a characteristic example of the country bordering on the Bay of Naples. Posilipo derives its name from Pausilypon (*saus-souci*), the villa of the notorious epicure, Vedius Pollio, afterwards the property of Augustus, which was gradually extended to the whole hill. It is covered with villages and charming vineyards, reached by long, sloping roads, from which late in the afternoon the most entrancing views are to be had of the magnificent bay with its islands, and the smoky cone of Vesuvius flanked by the more distant mountains of Sorrento. Popular tradition assigns a Roman columbarium in the vineyards above the old road as the tomb of Virgil. A satisfactory historical foundation is wanting to this assertion, but probabilities favor the assumption that this is, indeed, the poet's last resting-place. He himself informs us that he here composed the "Georgics" and the "Æneid," and he certainly possessed a villa on the Posilipo, and by his express wish was buried here after his death at Brundisium (*Brindisi*) in B. C. 19 on his return from Greece. Petrarch is said to have visited this spot accompanied by King Robert, and to have planted a laurel.

The *Strada Nuova di Posilipo*, shown in the illustration, starts from the Mergellina, at the west end of Naples, a locality that will be remembered as the abode of the fisher-folk, with whom Lamartine mentions dwelling in his story of "Graziella."

It at first skirts the coast, and then gradually ascends in windings around the southern slope of the hill, finally descending in the direction of Pozzuoli. On the left, jutting into the sea, are the picturesque seventeenth century ruins of the unfinished *Palazzo d' Donn' Anna*, also mentioned by Lamartine as one of his favorite resting-places. Farther up are the famous "Grottos" or tunnels, and just beyond the headland, shown in the engraving, are the scattered ruins of the villa of Vedius Pollio, extending to the sea and now overgrown with broom and myrtle. Nearer the tow.. are the fish ponds where the cruel Vedius was in the habit of feeding large lampreys with flesh of his slaves. Here, also, is a small theater which belonged to a villa of Lucullus, and a temple where mariners sacrificed after a prosperous voyage. The entire landscape with its myrtles, olives, and stone pines seems saturated with the spirit of classical mythology and romance; and from the long upper stretches of the road looking down over the villas and gardens to the broad expanse of the bay, little imagination is needed to people it with the fleets of Roman triremes from near-by Misenum and the pleasure galleys of the luxurious magnates who dwelt upon its curving shores.

Byzantine Brickbuilding. I.

BY H. B. PENNELL.

THE term "Byzantine" is rightly applied to the style of architecture in vogue in Byzantium, the modern Constantinople, early in the Christian era. But to suppose it originated in or was confined to Constantine's new capital is to deny the process of evolution, which is as apparent in architectural as in physical growth. It was the product of environment and circumstance. Springing up in the city that was for a while to take Rome's place as the seat of the world's wealth and power, it was influenced by the classic traditions of Greece and Rome; while all the art of the Orient — Syria, Persia, even India — was brought to enrich and beautify it. For Byzantium was on the thoroughfare of commerce, and merchants, as well as artists and artisans, of both East and West flocked to the growing metropolis. Through this same channel of commerce Oriental art had already travelled to Ravenna, when under Justinian it became the residence of the Byzantine governor of Italy, and where we find some of the best examples of Byzantine architecture and decoration. Thence this potent influence spread to Venice and northern Italy, and even to southern France. To Sicily, also, it was carried from Constantinople by way of the Mediterranean. It is the official style in Russia and Turkey to-day.

It is by no means a difficult matter, then, to analyze the Byzantine style and trace it to its origins. The use

CLOISTER OF ST. APPOLLINARE, NUOVO, RAVENNA.

and development of the dome is, of course, its chief characteristic. We find its precedent in Asia Minor and Syria, where, as is evident in the ruins of Palmyra and Baalbec, the tendency for some time had been to substitute curves for straight lines, and arcades for lentils. In Rome the dome was familiar as a feature of the Pantheon and the Baths of Caracalla. Roman, likewise, was the use of marble and mosaics in the treatment of the wall spaces

CLOISTER OF ST. APPOLLINARE, NUOVO, RAVENNA.
Sketch by H. B. Pennell.

and pavements. To the East, again, is due the fondness for brilliant coloring and for ornamenting broad surfaces with "all-over" patterns. It must not be supposed, however, that Byzantine architects were mere copyists. On the contrary, their adaptive power and perseverance in working out their own problems of construction made their art so unique as to be almost original. If they adopted the vaulting methods and materials of their Asiatic contemporaries, or if they received from Rome a suggestion for the foundation of their constructive principles, — that of using isolated supports to receive the weight, and internal buttresses to resist the thrust of their vaults and domes, — it was simply that they might accomplish the perfection of the dome on pendentives over a square plan, which was their chief triumph. The Pantheon is round; many Syrian buildings of the sixth century are polygonal; in the cathedral at Bozrah and the small church of St. George at Ezra there are attempts at pendentive construction. It is in Byzantine churches that we first find a successful application of the dome to square or cruciform plans having piers and columns, or aisles, — the Byzantine's nearest approach to the traditional basilical form especially suited to the usages of Christian worship.

With this brief review of the origin of Byzantine architecture we can study its growth; its constructive and decorative methods in general, and in detail, as applied in some familiar extant monuments; and its culmination in Justinian's masterpiece, the church of Santa Sophia in Constantinople, the type *par excellence* of the Byzantine style.

Following the precedent of both Syrian and Roman builders, the Byzantines adopted brick as their chief material, it being peculiarly adapted to the molding of vaults and domes. Not only in Constantinople, but generally in the East, bricks were used profusely. In fact, Texier says that even in countries where stone is plentiful, architects seem to have preferred bricks to all other materials. The church of St. Nicholas at Myra, in Lycia, is built almost entirely of bricks. Fine building stone was not quarried nearer to Constantinople than in the islands of the Greek archipelago, where to-day the Turks obtain a large part of the materials for their public buildings and residences at Pera. In the early days of the rapid renovation of Byzantium, the transportation of stone in large quantities from such a distance involved great expense and the loss of much valuable time. On the other hand, good brick material was easily available; the shores of the Golden Horn still furnish excellent clayey soil for the manufacture of bricks. These were made after the Roman pattern, but more carefully, and were larger and better burnt. An especially firm mortar containing particles of broken tiles was used, and laid in joints scarcely less thick than the bricks themselves. Professor Atchison in his lecture on "Byzantine Construction" (*Architectural Record*, June 30, 1893), says: "This mortar is called by Vitruvius *opus signinum*, and

ST. VITALE, RAVENNA.

was used as a hydraulic cement, and partly as a material to resist heat. It is still used throughout Macedonia, and is now called "Khorassan" work. The Byzantines preferred their lime made from marble, but used limestone when marble was difficult to get or too expensive to use." Whereas the Romans used rubble faced with brick, ashlar, or freestone, the Byzantines, as a rule, preferred brick throughout in their walls and piers, and for the vaulting of many stone structures. The use of cut stone in vaults, however, is not uncommon, and piers destined to bear especially heavy weights were often made of stone and strengthened by wooden ties clamped with iron. A

ST. VITALE, RAVENNA.
Sketch by H. B. Pennell.

familiar feature of Byzantine exteriors is the alternation of courses of brick and stone, notably in Santa Sophia. Otherwise, the exteriors are rather unsightly, being devoid of even the gracious light and shade afforded by external buttresses, and are scarcely a fitting case for the wealth and splendor which they enclose.

Upon their interiors the Byzantines spared no expense or labor. They were marvels of color and design, and almost baffle description. Panels of rare marbles, cut in slabs and set so as to repeat or reverse the course of the veins and form symmetrical patterns, veneered the walls. The domes and vaults above their springing were covered with fresco, or, more frequently, with many-tinted mosaics on gold, blue, or green backgrounds of exquisite hue, which continually remind us that the Orientals are greater colorists than we. Biblical scenes and characters were represented. The colossal saints and allegorical personages here and there betray the unaccustomed hand; for the skill to draw the human form was long uncultivated, through the intolerance in the Christian church of anything suggestive of pagan gods. The stone soffits of the arches, the archivolts, and spandrils are relieved of all appearance of heaviness by the delicate tracery of incised acanthus, or conventional forms. The capitals, whose inverted pyramidal outlines and massive proportions were well calculated to bear the weight resting on them, suggest rarely, if at all, the classic orders, but show Syrian influence in their minute carving; and rudely drawn birds or animals, and the cross and monograms, are frequent motives of their decoration. The

columns themselves were highly polished monoliths of marble, often brought over the seas from some demolished pagan temple in Rome. No attempt was made to follow classic traditions in the moldings, which, instead, were mere horizontal bands, or, when they marked the

CAPITAL FROM ST. VITALE, RAVENNA.

separate stories, cornices of richly carved marble. The pavements were of marble in designs formed of single pieces of color, or of small geometrical figures carefully fitted together.

In all this the architects of the New Empire profited from the work in Syria, or the monuments still preserved to them in Rome. In one important particular their art is a distinct departure from the Roman, and this serves as the line of separation between the two. It was in the matter of the construction of vaults. In Rome, light wooden ribs or centers were first built, and these were enclosed in a network of brick filled in with rubble in horizontal beds; the whole was then incrusted with concrete. The vault was thus practically monolithic and exerted no thrust. The Byzantines, on the other hand, after the manner of the ancient Assyrian drain-builders aimed to so dispose their materials that they could build up their vaults without centerings, practically "in the air," as M. Choisy remarks. This was, of course, not achieved all at once, but was a development which we can trace, though somewhat haltingly, through the continual experiments of the centuries.

The distinct Roman method is apparent in the great dome of the Pantheon, built in Hadrian's time. The basilica of Maxentius, vaulted by Constantine, and the Baths of Diocletian show a similar method, but are the last in Italy. At Spalato, in Dalmatia, Diocletian's palace approaches somewhat nearer the Byzantine style. The vault was built on rows of arches superimposed, the spandrils of one row serving to support the springing of the next higher. In the two latter buildings we find the first indications of other Byzantine characteristics in the full-centered arch with the entablature carried round as an archivolt instead of a pediment, and heavy moldings. After the fourth century we find few examples of the thick monolithic Roman vault.

The parting of the ways between ancient and modern Roman construction came early in the fifth century, when Bishop Néon introduced from the far East the vault of such extreme lightness as to be scarcely more than a form to receive the rich garment of mosaics. At the same time, circular and polygonal plans, already in favor in Syria and used especially in baptisteries like that of St. John at Ravenna, were generally reproduced both in Constantinople and Italy. Henceforth, the problem was emphatically how to erect a hemispherical dome over other than a circular plan. The earliest solution was to cut off the corners of a square and corbel out the pendentives; but an octagon was found to be an awkward base. Squinches were used on squares, or conches, as in St. Nicodemus and Daphne at Athens. In the West the Renaissance architects at Sta. Fosca, Parma, and Piacenza resorted to the same device. Justinian covered his octagonal church of St. Sergius and Bacchus at Constantinople by a circular dome with flutes whose points act as ribs, while the rounding parts of the flutes coincide with the angles of the walls. A similar experiment had been tried more than two hundred years earlier in the octagonal hall of the Baths of Diocletian.

These various expedients were merely stepping-stones on the highway to the greatest Byzantine achievement, that of using true pendentives to fill the triangular spaces between the arches on the four sides of a square, and erecting the dome on the circular base thus formed. We find a primitive example of this solution of the problem in the little brick Tomb of Galla Placidia, in Ravenna,

LA PETITE METROPOLE, ATHENS.

built in the middle of the fifth century. It has the form of a Greek cross, with barrel vaults over the four arms and a spherical dome on pendentives over the crossing. An irregularity occurs here, however, in that the dome does not spring directly from the top of the arches, and the pendentives do not show to good advantage. The walls are carried up several feet above the arches, and a

sort of clearstory window — if one may borrow the term — is pierced in each one. On the exterior the form of the dome does not appear, as it does in Oriental buildings, the tiled roof being, instead, a low pyramid in shape.

To Galla Placidia, also, is attributed the construction of the church of St. Aquilinus in Milan, having an octagonal dome of brick on an eight-sided plan. Besides affording us much interest as examples of early Byzantine

TOMB OF GALLA PLACIDIA, RAVENNA.

construction, these two buildings, together with the Baptistery at Ravenna, show an exterior decorative treatment that was later to distinguish the Lombard style. In the Tomb, blind arches ornament the exterior; in the Baptistery is found a system of double arches carried on corbels and wall-pilasters; and in St. Aquilinus there was a gallery of arches springing from isolated supports, such as are familiar to us now on the Cathedral at Piacenza, built nearly seven centuries later.

The interior of the Tomb, as is to be expected, presents a pleasing contrast to the monotony of the exterior. One must imagine the bare brick walls once lined with marble to the springing of the arches; the mosaics on a background of deep blue, representing figures, birds, and animals on the flat walls, and conventional patterns on the vaults; the borders of flowers and fruit in red and green and gold outlining the soffits and archivolts; the dome of blue, starred with gold, and the gold symbols of the four evangelists on the pendentives; — these all make an ensemble of pleasing harmony. A rather more ambitious scheme of decoration is carried out in the dome of the Baptistery, where around a medallion, picturing the baptism of Christ, stand the twelve apostles in white tunics and mantles of gold. Their proportions scarcely follow the "canon of Polyclitus," but there is at least a commendable attempt at individualization in their countenances, and no little movement in their figures. Arabesques, which M. Taine calls coarse, cover the walls. The dome is supported by two rows of arcades, whose columns and capitals are so varied and ill-assorted as to warrant the conclusion that they were appropriated from pagan temples.

The Baptistery is connected with San Vitale, and also with the chapel of St. Satyrius in Milan, by the peculiar construction of its dome. In each case the dome is built up of two layers of hollow pots of terra-cotta, the pointed end of one being inserted into the larger end of another, carried round spirally from the top of the pendentives to the summit of the dome. The domes are thus very strong, but light and without thrust. This method is still practised in the East, varied occasionally by laying the pots as *voussoirs*.

Of the church of San Vitale, M. Taine ("Voyage en Italie," p. 221 *et seq.*) says: "It was built under Justinian, and to-day, although marred on the exterior and miserably repainted within, torn down in some parts, and in others built up with inharmonious additions, it is still the most Byzantine of all the churches in the West. It has a peculiar construction, and represents a new type of architecture as far removed from Greek ideas as from Gothic. The edifice is a rotunda surmounted by a cupola through which light is admitted. Around the outside runs a circular gallery in two stories, composed of seven smaller half-domes, and the eighth, being more spacious, is an apse which contains the altar. . . . To support the dome, eight huge polygonal pillars joined by round arches form a circle, and columns in pairs fill the spaces between. The effect is strange, and the eye, accustomed to following a succession of columns, is astonished here by the interruptions, by the fantastic variety of outlines, by the straight lines cut by the curve

INTERIOR OF TOMB OF GALLA PLACIDIA, RAVENNA.

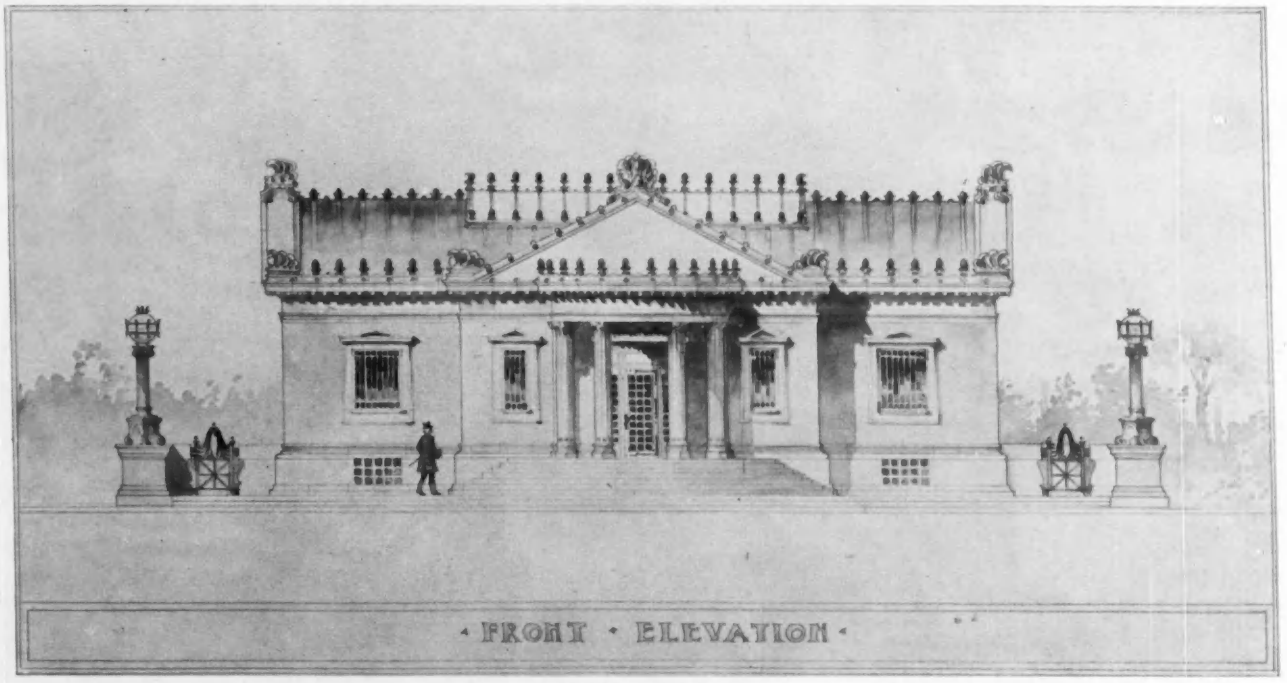
of the vaults. . . . The capitals of the piers and columns are covered with clumsy flowers and a coarse network; . . . the elegant Corinthian capital is deformed . . . till it is merely a complication of barbarous designs." The mosaics are familiar to every one; the Empress Theodora and her ladies bearing offerings are ranged on one side of the apse, and the Emperor Justinian with his warriors and priests on the other. These are considered the richest of all the Byzantine mosaics, resplendent as they are with gold and precious stones.

The "Village Bank" Series. II.

BY LOUIS MULLGARDT.

IT is comparatively recent that banking institutions have been looked upon by the populace at large as a matter of primary necessity in every well-established community. Every hamlet or village containing a modest population, numbering from three to five thousand souls or over, has its peculiar requirements and characteristics, which are the natural offspring of its social and industrial life.

The familiar village has its churches of various denominations, also its schoolhouses, town hall, library, museum, theater, or music hall, aside from a variety of business houses and residences. Sometimes a village is endowed with some special industry peculiarly its own, and of sufficient magnitude or importance to the world to characterize the locality.



A VILLAGE BANK.

Then, again, other villages are surrounded by large territories of industrial fields producing coal or fine ore; otherwise, farm-lands producing fruits or cereals. The industrial surroundings or local conditions are the direct source from which any village is likely to receive its greatest endowments from a standpoint of riches.

There is another class of village which is not endowed with industrial life, nor stimulated into activity by the inspiration produced by surrounding fields of nature's own products; such villages do not, as a rule, find their way into the channels of commerce; they do not, strictly speaking, assume any of the characteristics of an industrial community, and may generally be classed as the home of the urbanite.

In certain sections of every civilized country or State where special industries prosper and flourish, we will, as a rule, find an exceptional activity prevailing in the village nearest adjoining, and properly forming the commercial center of that territory. In such instances, the village occupies the important and undisputed position of mart to that industrial section; it is the port of commerce in which the townspeople are chiefly engaged in providing economical means of exportation of the local product, and importing the commodities which constitute the natural demand of every well-regulated community.

The result is, that we generally find in any single section or territory of commercial activity three distinct classifications of co-workers, consisting of the employers, who, by virtue of their position in life, properly officiate in the capacity of owners and financiers, sharing and distributing the direct financial returns resulting from their industries; secondly, we find the industrial class, who represent the intellectual and physical force required to execute any marketable commodity. The third class is represented by the merchants and general business men, who are the immediate officers and agents conducting exports and imports, subject to the natural demands of a community. Each class has its special work to perform, through which it produces its revenues; each class has its local or foreign expenses, and its surplus (providing that the community is properly regulated).

All surplus funds generally seek some form of more or less permanent investment, and all moneys not otherwise engaged usually find their way to the village depository, which, by the way, is intended to be the principal theme of my remarks.

The predominating industrial interests of various villages are likely to be considerably diversified in their nature; however the case may prove to be, the result will still present itself approximately identical, in the main, to the one related heretofore, and whatever the direct source of income to any one community may be, the practical result should properly remain the same.

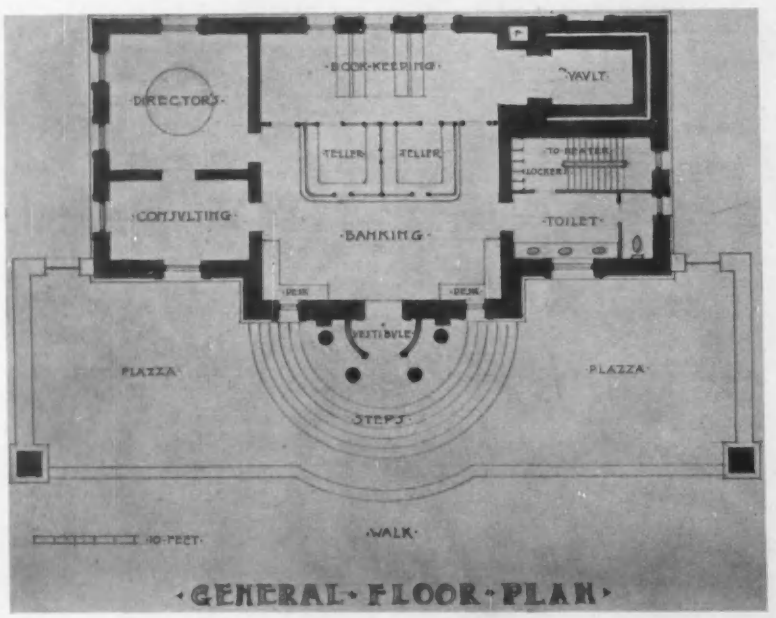
In respect to the storing away of surplus funds and

valuable papers, the antiquated methods of concealing the same in the earth, or in old chests and strong boxes, are no longer as popular as they were some years ago; nor perhaps are featherbeds, stockings, and disused cast-iron stoves in as general use as one might infer from the sad newspaper accounts which are frequently published.

A bank is now regarded as essential in every thriving, prosperous community, and is quite as important an institution, in its way, as the church, schoolhouse, city hall, or public library.

A bank is the most convenient institution for conducting important financial affairs; also, for the safe-keeping of funds and valuable papers; for all of which it is highly essential that the vaults, likewise the moral character of the bank officials, be as strong and reliable as possible. It is at times, perhaps, to be regretted that the latter cannot be included in the architect's plans and specifications.

The accompanying drawings are intended to illustrate the general requirements of a village bank. The general banking room is intended for conducting all banking affairs of a more or less public or general nature. The same should be provided with a tile or mosaic floor, and wainscoted with a similar material to a reasonable height, so that the room may be easily kept clean. The room should be provided with public seats and writing desks; the furniture and fittings should be so arranged as to meet any special requirements of the management, or as some special exigency peculiarly adapted to the locality may dictate. Conveniently located to the public banking room, should be the consultation room, where such private business and other matters requiring the special consideration of the officers in charge may take place. The directors' room, immediately back of the consultation room, is ordinarily used by the president as his private office, but is primarily intended for the convenience of holding board meetings. This room should be conveniently accessible from the general banking room; it may sometimes be found desirable to separate this room from all other apartments by glass partitions only, admitting of ready surveillance of all other departments.



A VILLAGE BANK.

The vault may properly be considered the most important part of the institution, since it is impossible to conduct a banking business with reasonable safety and economy without an efficient stronghold as a depository of valuables. These vaults are usually constructed of heavy masonry, surrounding a shell lining of steel. The most modern vault, however, is constructed of armor steel plates, such as are used on our war vessels, including the top and bottom, and have all corners dovetailed together. The vault door is made proportionately strong and secure, and supported on adjustable anti-friction hangers, and provided with an approved time-locking device. The interior should be arranged into steel subdivisions especially designed for keeping the banking books, records, moneys, valuable papers, and sometimes jewelry.

The entire banking room should be flooded with a soft light penetrating the building through a skylight panel properly set and supported by cross-beam construction.

The windows of the banking room proper should serve chiefly as a means of ventilating and providing fresh breezes to the working department, and should not be required for the purpose of securing additional light.

Proper means must be provided for convenient access to the basement, both for the purpose of attending to the heating apparatus, and as a means of access to some storage departments which may properly be provided within the foundation walls.

Provision should also be made for the clerks' coats and hats, by means of separate lockers conveniently situated to the toilet room; the latter may properly be so located as to serve for both public and private use.

It is quite essential that additional space should be provided for the filing away of old disused books and records; the space afforded by the foundation of the vault, properly lined, ventilated, and provided with metal doors, will readily fulfil this requirement.

A certain portion of the basement should also be set aside as a store room for the safe-keeping of silverware and other valuable articles, which may be conveniently stored there during temporary absence of any of the townspeople.

The entire building should properly be of fire-proof construction, and contain a modern combination heating and ventilating apparatus.

Referring again to the banking room proper, the general arrangement of the teller's and clerks' department is largely a matter of individual preference, since local conditions and personal requirement on the part of the management must govern these points.

The "Village Inn" Series.[1] I.

BY WILLIAM A. BATES.

ABOUT twenty miles from Philadelphia there is a small, attractive town, which, during the past few years, has attained a remarkable growth, not only in a substantial way, but with a decided tendency towards the æsthetic as well, all of which reflects great credit upon the men of temerity who have founded their pretty homes for their families, which are easily accessible from the city, and which have the well-known suburban advantages of abundant air, shade trees, extensive lawns, and healthy surroundings. A feature of the town, not least in attractiveness, is the public square, which, although architecturally heterogeneous, is still very quaint and effective, more from the point of view of the artist, perhaps, than from that of the architect.

The square is not square exactly (and is, I think, more picturesque on that account), and has surrounding it on three sides a group of buildings consisting of some shops, a modern town hall, decidedly Parisian in style, a parish church in English Perpendicular Gothic, and a very dignified old mansion of the Jeffersonian period. On the opposite side of the square, from the church and town hall, is a piece of property with a frontage of 300 ft. on the square, and extending back in an irregular shape some 800 ft. to the river. Now this property has been for many years used as farm land by the owner, a gentleman of English birth, whose parents acquired it for a mere trifle, and who lived in the old mansion on the square. With the lapse of time and the growth of the town, this piece of land has become valuable, and the owner, being a man of much common sense, has consulted with his architect as to ways and means for improving it and making it a source of revenue instead of sowing it with gold in taxes and reaping nothing; and the architect's views and ideas are set forth herewith in the form of plans and sketches, bearing in mind, of course, that the owner is a man of rare discretion, and whatever merit there may be in the scheme is due largely to his shrewd criticism and suggestions.

A VILLAGE INN.

The conclusion was reached without much delay that a typical "Village Inn" would be the right thing in the right place, as the town has no hotel and but few boarding houses, and its nearness to the city together with the good macadam roads make it a popular Mecca for coaching and automobile parties, bicyclists, sleighing parties in winter, and the best class of pleasure-seekers generally, while a good place for permanent guests would surely prove remunerative.

One of the owner's first and most urgent requests was that the building should follow the style of the English Renaissance, and he produced a photograph of a building in Huntingdonshire, with which he had become familiar in childhood, which he requested the architect to take as his motif. Fortunately, the style was not inappropriate, in fact, lends itself well in regard to plan to just such an

[1] PROGRAM.

The problem is a village inn to be located in a section of beautiful country some twenty miles out of Philadelphia. This inn is supposed to be for the accommodation of coaching and sleighing parties, bicyclists, and the best class of pleasure-seekers generally, and of a limited number of permanent guests, who will use it as a kind of summer resort. The lot of land faces on a village square with a frontage of 300 ft., and reaches back in a rather steep slope to a small river available for boating and fishing. The land is supposed to have been formerly an ancient estate, and contains many large trees, an orchard, and shrubbery. The view across the river is supposed to be particularly attractive. The square is surrounded by various buildings,—a modern town hall, decidedly Parisian in style, a parish church in English Perpendicular Gothic, an old mansion of the Jeffersonian period, and two blocks of low shops.

In architectural style the inn should do its best to harmonize with its somewhat heterogeneous surroundings, the material to be of brick and terra-cotta. The accommodations of the inn should be dependent on the purposes for which it is intended, entire liberty being left in the matter of size and nature of the rooms. The scheme should also involve the necessary stables and the accessory buildings.

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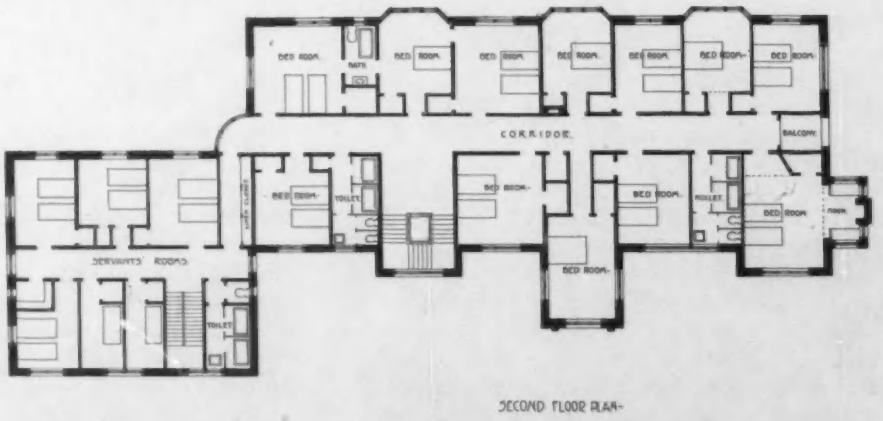
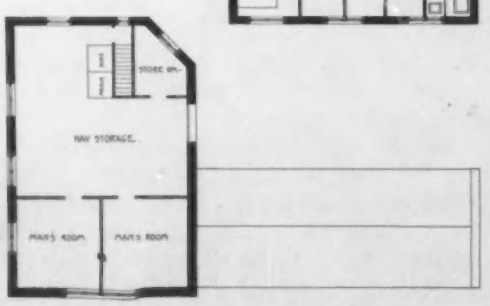
enterprise; and another of his requests or conditions, more urgent indeed than the first, was that the building should be built of brick and terra-cotta, for he had had some experience in building transactions, and had wisely concluded that in every way these materials were all that could be desired, either from the standpoint of economy, durability, or effectiveness. In connection with the planning of the building, the architect was also requested to suggest a scheme for developing the grounds and making them as attractive as possible for the guests.

What attracted the architect to this estimable gentleman, more than his genial personality or any other personal qualification, was the fact that he did not set any limit to the cost of the building, although he had pretty definite ideas as to the number and size of rooms required; and the architect, on his part, refused, with many a gnawing pang, the temptation — which no architect can be blamed for having — to affix to the building all the "architecture" which he knew or could trace. Therefore, together they evolved the building which is here illustrated, and which, although more pretentious perhaps than the average village inn, must be considered and criticized from the point of view of the Philadelphians who are to use it.

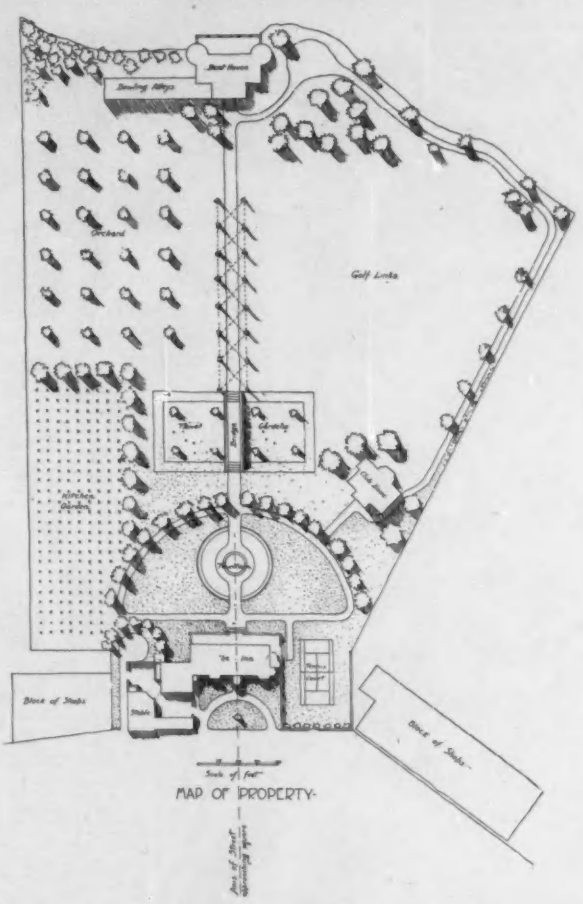




A VILLAGE INN.

The general grouping of the buildings was determined by their convenience and accessibility, and it will be seen that it would require but very few minutes to drive up to the front door, and then have horses and vehicles left in the adjacent stable yard until needed.

The main entrance is through a tiled porch which is on the axis of the street approaching the square, on the opposite corners of which stand the church and town hall before mentioned. The feature of the ground floor is the large hall with wainscot and paneled beam ceiling of black oak in Elizabethan style. At the left of the entrance, separated from the hall by an arch, is the office,



A VILLAGE INN.

beyond which the massive staircase with perforated oak balustrade is plainly seen. There are two entrances from the hall to the tiled terraces, one being for the exclusive use of ladies, and in direct connection with their parlor and coat room. Occupying the southwest corner is the pool room, which commands a fine view of the grounds and of the tennis-court. The opposite angle contains the dining room, which, facing the south and opening upon the uncovered terrace, would always be cheerful and attractive. The kitchen department is completely isolated, and the servants' bedrooms are directly over it so that in perspective it will be seen that the kitchen wing is somewhat detached and subordinated from the main building. There is a separate drive for the use of supplies to the kitchen, and the stable yard and main driveway are reserved exclusively for the use of guests. The upper floors contain twenty-four large well-lighted bed rooms for guests, with abundant closets, toilet facilities, etc.; in fact, it is the wish of the owner to spare no expense to make this building as comfortable and luxurious as possible.

"The Brickbuilder" Competition IV.

A CREMATORY.

CRITICISM AND AWARD BY JOHN W. CASE.

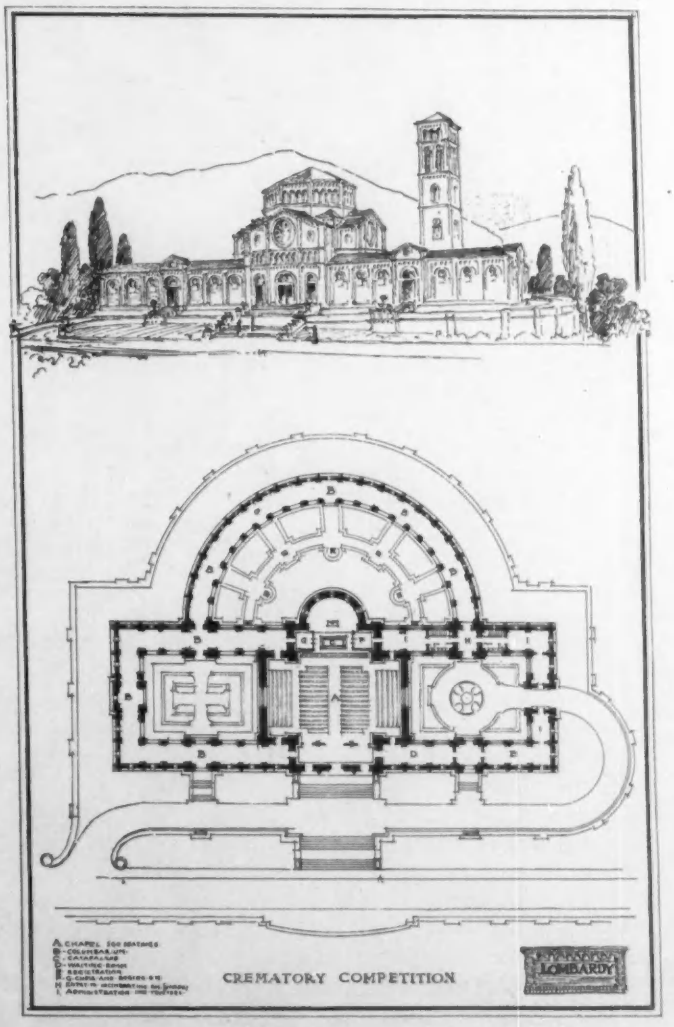
THE program for crematory competition does not seem to have appealed to designers, possibly because it is not a picturesque subject. The program is an academic one, classic in character, and possibly academic designers prefer to express themselves in plan and elevation rather than in perspective. Picturesque subjects are much more apt to be interesting in perspective than academic ones.

There is but one design, "Lombardy," submitted in the crematory competition that is fit for publication, and that one has, in elevation, very much the character of a monastery.

In plan, however, it is unmistakably a crematory, as shown by the ambulatory arranged as a columbarium.

The plan is academic, and shows the good results of academic training; it is simple and direct, arranged on axes, with easy access and no cramped relations between the parts.

It is doubtful if the circling ambulatory adds any



FIRST PRIZE DESIGN.
Calvin Kiessling, Boston.

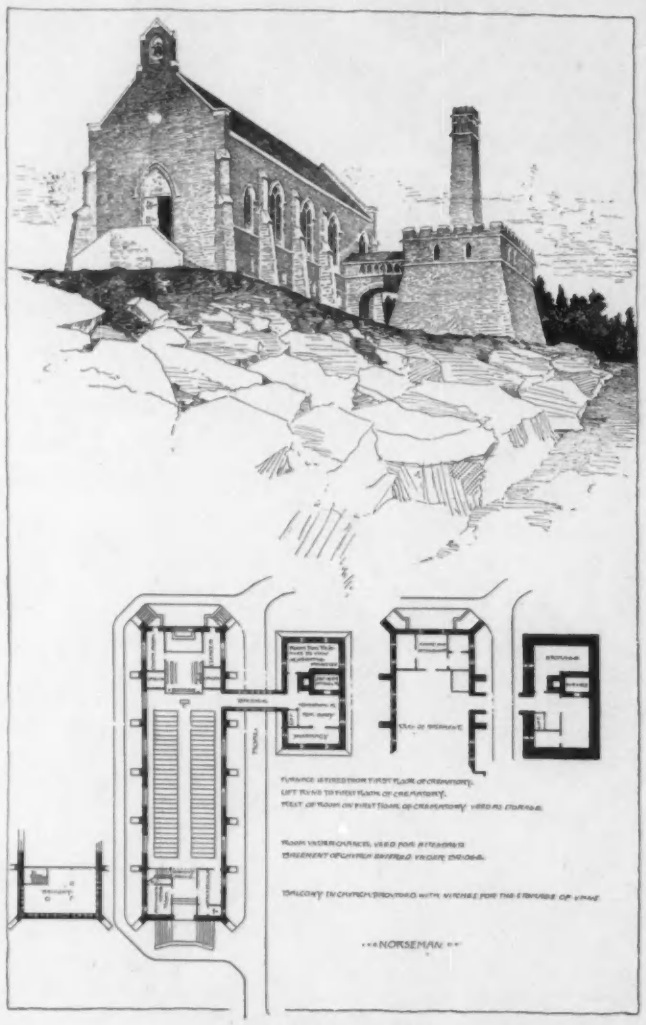
note of beauty to the design as seen in near perspective from the back, unless the ground falls away sufficiently to give an imposing height. It enriches and adds to the interest of the plan, which otherwise might be somewhat meager

It seems as though this circling ambulatory should lead to something of importance, and there is a distinct feeling of disappointment after walking about this semicircle and not meeting with anything of especial interest, which, perhaps, one would expect to find opposite the center axis of the chapel.

The designer of "Lombardy" may, however, have considered the rear view of the chapel and apse, with the statuary in the court, to be of sufficient beauty to engross the entire attention, and wished to subdue the interest of the circling ambulatory to that of the apse.

The campanile is unfortunately placed in regard to its perspective relations with the chapel, as, indeed, most Italian campaniles are. The top story of the campanile is a misfit.

The arrangement of driveway by which the hearse enters the enclosed court, thus shutting out the general public, shows refinement and good planning. Otherwise, it might seem better, so far as perspective relations are concerned, to place the campanile and entrance to the incinerating precincts in the circling ambulatory on the axis of the chapel; for although it is not absolutely necessary, practically, that the chimney be in close connection with the incinerating process, yet the two are so closely connected in thought that they seem best closely connected in plan.



SECOND PRIZE DESIGN.
H. S. Head, Reading, Pa.

The chapel is well placed in the rectangular ambulatory, and has points of interest marked on its center axes, the lack of which is felt in the circling ambulatory.

The plan of "Lombardy" is symmetrical, academic, classic in character, while the elevation is picturesque not only in the arrangement of accessories, but also in the character of the style of architecture.

The chapel is similar in plan to, and might have the breadth of effect and dignity of, Santa Maria delle Gracie at Milan.

The central octagon tower is not (nor are its historical predecessors) very well accounted for in plan, although its pendentives shoulder an appearance in elevation. The eight (8) monotonously identical faces of the octagon tower might be varied by a roof treatment similar to the tower of the cathedral at Salamanca, Spain.

The treatment of the gable façade of the chapel is unfortunate, and the pilaster treatment unhappy, although the designer has felt the necessity of breaking up this large flat wall surface and of relieving the heavy slope of the roof.

The arrangement of the waiting rooms, trustees, etc., has been neatly tucked into the plan, although it is evident that the practical requirements of the plan have been made entirely secondary to its monumental character.

The variation in the usage of the similar rectangles, one on each side of the chapel, adds interest to the plan, but is not indicated in elevation.

The small gables over the side entrances in front elevation are weak in interest.

In general, the character of the design expresses the usage of the building, and is of a monumental effect. The plan, undoubtedly, is superior to the elevation in character.

The design, marked "Norseman," is just the opposite in character to "Lombardy." It is a plain, matter-of-fact, every-day arrangement of the problem. It is as hard and angular as the rocky way which leads to its door. There is nothing here to relieve the grimness of death; in fact, its uncompromising character is accented.

The design lacks grace and beauty; it lacks poetry and imagination. The designer has felt this and tried to alleviate it by choosing a picturesque point of view for his perspective.

The chapel seems very long for its width, longer than the English cathedrals even.

The space in the balcony would be inadequate for the columbarium, the monumental character of which does not seem to have appealed to "Norseman."

The general scheme of "Omega" (Ω) is similar to "Lombardy," but not so well worked out. It fails principally because of a lack of life and feeling. The opportunity to gain richness of design and interest is lost by the

tiresome repetition of the same motive. Added interest and depth of thought would be gained by varying the detail and parts of similar masses. This fault is seen not only in the corner pavilions, but also in the towers.

It is not sufficient to get the general idea of a good scheme and then stop thinking, and repeat something without meaning over and over again. We must go farther; study how to vary the character of similar parts of the scheme, and try all promising arrangements of these parts.

The position of the chapel in regard to the rectangular columbarium is not well arranged. They have no definite relation. The columbarium might come at one half or one quarter the length of the chapel just as well as where it is placed, and from the chapel the entrance to the columbarium is not well marked.

If there were transepts on the chapel, the columbarium might well be brought to them, a fixed place from which to start.

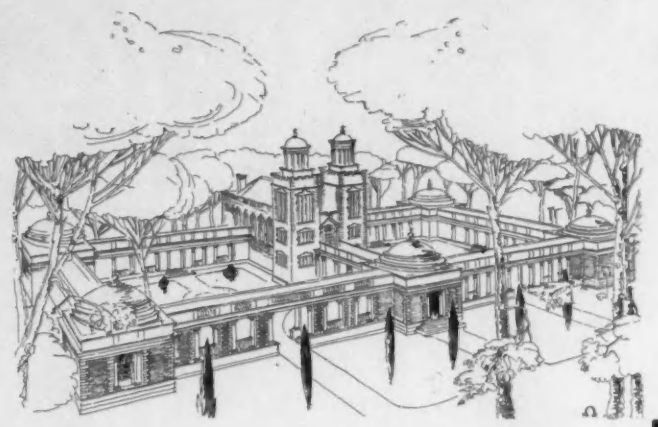
The repetition of the two large towers shows lack of thought. Why are two large towers needed? If we must have a tower on the façade, why not place it on the center axis of the chapel. The designer of "Omega" seems to have felt the insignificance of the chapel in elevation, and tried to compensate for it by repeating the massive tower, and having enlarged the rectangular columbarium too far, the design seemed scattered; hence, must have two towers, a large mass, to compensate for the mistake.

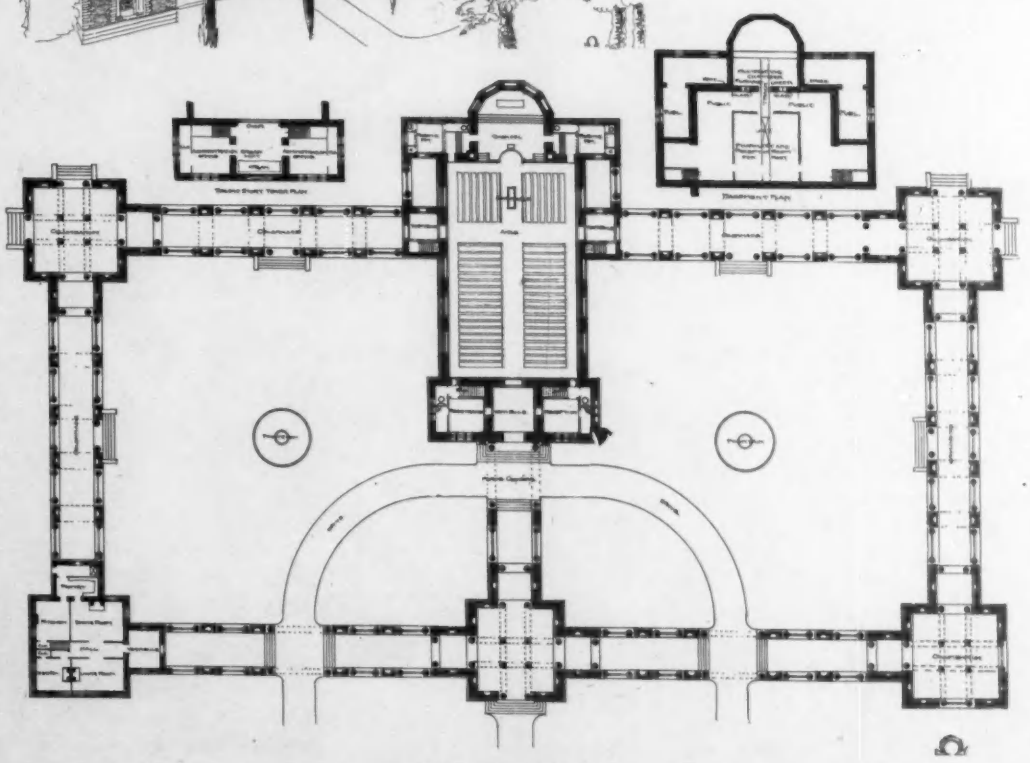
"Omega" has been unfortunate all the way through for having chosen a bird's-eye perspective; the paucity of the plan is all the more clearly revealed. The angle that the perspective makes with the edge of the paper is very awkward, and the gigantic pines and black-robed cypress trees do not suffice to fill out the awkward space.

The levels of the different parts of the scheme are confused. The pharmacy and viewing rooms are badly placed in basement without sunlight.

The administration offices are difficult of access. The keeper's rooms are well isolated. The designer has correctly felt that they should not be placed in the chapel building nor near the incinerating process.

The composition by "Bona Fide" lacks balance. The columbarium would not show from the opposite point of view. It is not sufficiently connected to the chapel. They do not seem to belong necessarily to the same composition; either could apparently do without the other.





THIRD PRIZE DESIGN.
John Stafford White, St. Louis, Mo.

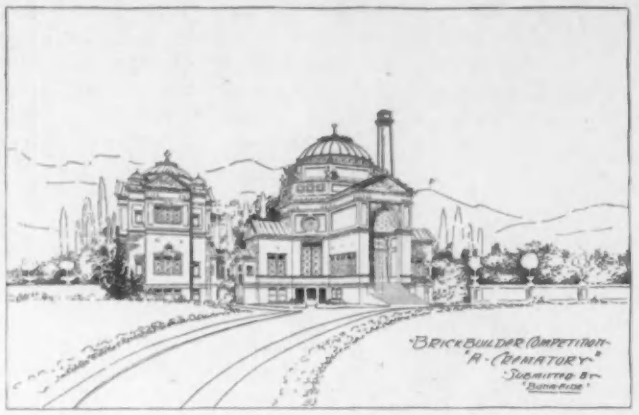
By repeating a columbarium, with variation of treatment, on the opposite side of the chapel and on the same axis, and connecting the group closely, balance and unity would be gained.

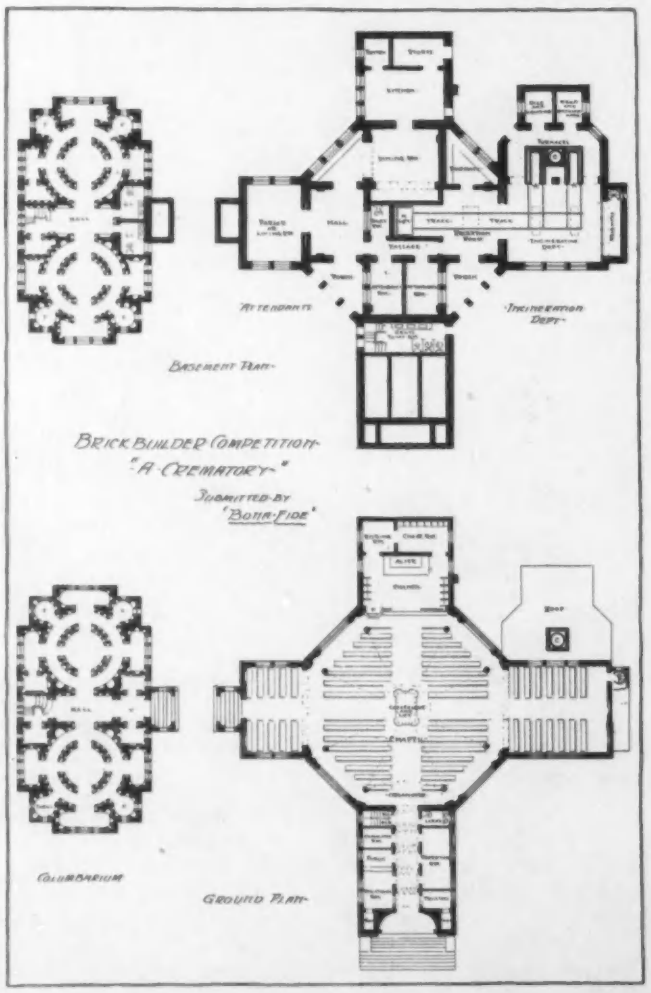
The masses are too tall in proportion to their width for the style of architecture. Classic architecture is a horizontal system, and the excessive height of the buildings in relation to their width makes the design uneasy. It lacks repose for this reason.

There is a struggle between the horizontal and vertical lines, and neither is supreme.

If the chimney must be so strictly utilitarian and lacking in interest, why not suppress it entirely and use a forced draught?

In plan, the wings are long for the central octagon; they straggle, and would interfere with the perspective of the dome.





MENTION.

Willford A. Gagnon, Montreal, Can.

The catafalque is not well placed in the midst of the seating, as there would be a tendency of those seated in front of it to turn about.

The trustees' and reception rooms are well placed. The living rooms are too near the incinerating process, and would be better isolated.

Fire-proofing.

THE FIRE-PROOFING OF THE GOVERNMENT PRINTING OFFICE, AT WASHINGTON, D. C.

ABOUT February 1, there appeared in several of the technical journals an advertisment, soliciting proposals and designs for the construction of fire-proof floors and steel protection for the new Government Printing Office, at Washington, D. C., which afterwards developed into what was probably one of the most interesting competitions ever conducted in this country in relation to fire-proofing.

The construction of the building (an idea as to the size of which may be formed from the fact that the floors alone cover an area of 400,000 sq. ft. after allowing for openings, etc.) was placed under the supervision of the engineer of the United States Army, with John Stephen Sewell, First Lieutenant, Corps of Engineers, in direct charge.

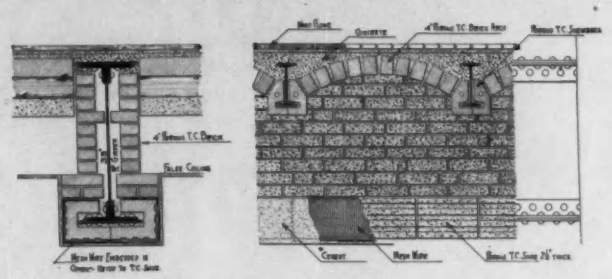
The structural steel drawings were designed, showing series of deep girders running transversely through the building at an average distance of 12 ft. on centers, between which were shown floor beams spaced about 6½ ft. apart; but the specifications were such that the floor beams might be re-spaced to suit any particular construction, or they could be entirely omitted (with the exception of beams opposite columns), and a proposition submitted for a construction spanning from girder to girder, with the understanding that the price of all additional steel work, necessitated by any change from the drawings, was to be included in the submitted price for the floor construction.

The specifications required in general a construction to support safely a 400-lb. per sq. ft. superimposed load, and to withstand a drop test of 500 lbs., in the form of a barrel of sand of the above weight, falling from a height of 8 ft. in the clear, without showing any injury to the floor, and it was specifically stated that no concrete, composed of cinders, would be accepted. This, as can be seen, necessitated a construction somewhat out of the ordinary; but, nevertheless, there were in all ten proposals submitted, comprising both long and short spans in concrete and steel and terra-cotta construction.

The specifications for the girder and column covering were also far beyond the ordinary, since it was necessary in the case of the girders to attach electrical junction boxes, by means of bolts, to either the sides or bottoms of the covering; and since these boxes are liable to be moved any number of times, the covering would have to be of a nature to permit of drilling, until it was practically honeycombed, without showing any defects; and as to the column covering, this was required to withstand the same drilling as above, in the same manner. The test prescribed for the girder covering was 400 lbs. per lineal ft., hung on expansion bolts.

After all estimates and designs had been carefully examined by the engineer in charge, Lieut. John Stephen Sewell, it was announced that the proposition of the Fawcett Ventilated Fire-proof Building Company, Limited, of Philadelphia, had been accepted, and that their

proposition had been recommended for acceptance to the Chief of Engineers U. S. A., Gen. John M. Wilson, and had also been published in the *Engineering News*.



SKETCHES SHOWING FLOOR CONSTRUCTION AND METHOD OF FIRE-PROOFING GIRDERS AS DESIGNED BY THE U. S. GOVERNMENT.

Because of objections raised by some of the competitors, it was announced that all designs and estimates would be rejected, and that the Government would make their own designs and re-advertise for proposals.

In the second case, after going over the several designs submitted, which included all the prominent constructions, the chief engineer in charge designed a system of floor construction as well as steel protection, which were composed almost wholly of terra-cotta.

The specifications accompanying the designs of the Government stipulated that all materials must be of a highly porous nature, samples of which must accompany the proposals, and it was stated that special attention would be paid to the character of the material and the degree of heat at which it was burned, it being the purpose of the Government to procure as highly a refractory material as was possible, within the means prescribed.

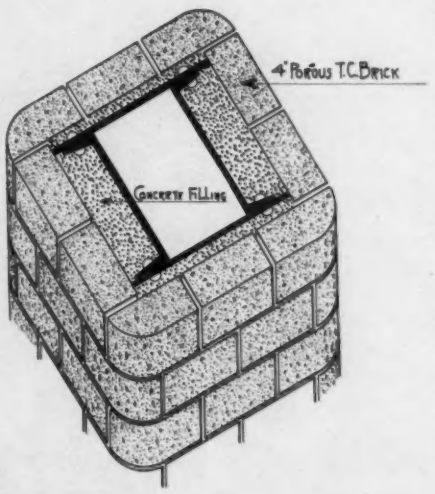
After examining the proposals and samples submitted, it was announced that the Fawcett Ventilated Fire-proof Building Company, Limited, were again the successful bidders, and they eventually received the contract for the work.

We present, herewith, the designs submitted by the Fawcett Company, as well as those executed by the Government (which could not consistently use a patented construction), and upon which the second propositions were based.

The brick and skew-backs forming the floor arches are made with a porosity of about 40 per cent. from a buff clay, which burns at a temperature of about 3000 deg. Fahr., and when set form a floor which is as nearly proof against the passage of fire as it is possible to produce; the fact of the brick being made porous not only reduces their weight very considerably, but imparts to them the faculty of resisting the passage of heat for a much longer period than if they had been made of dense material, and, as has been proven by tests, will resist the combined action of fire and water without any apparent deterioration.

The covering of the girders is made of the same material; the shoes covering the flanges are 2½ ins. in thickness, and of the same porosity as the brick; in addition, the sides and bottoms of said shoes are heavily grooved so as to allow the cement covering, which acts in conjunction with a mesh wire to form a key; after the shoes have been covered with the wire and the cement is set, they will permit of any number of holes being drilled in them (the material itself being very tough and fibrous), and will sustain a considerable weight with safety, the wire and cement securely holding the same together in the event of any tendency to spread or crack, which is hardly probable.

The same points, generally speaking, pertain to the column covering also; the brick, being of the same material and laid in 2½-in. courses, and after being backed up with rich Portland cement and concrete, will constitute what is probably one of the best pieces of column protection yet attempted, will carry great weight of itself, and can be honeycombed without seriously imparing its strength.

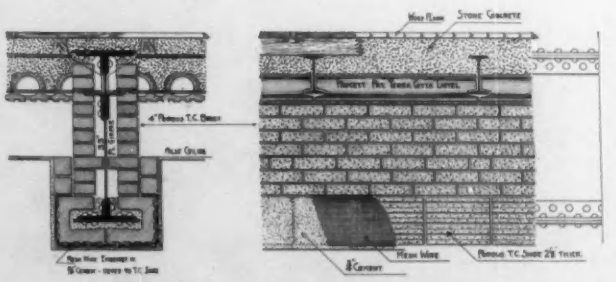


DESIGN FOR COLUMN COVERING USED IN BOTH CASES.

It will be seen from the two designs, shown herewith, that the construction of the column and girder covering is the same, and that the floor has been changed from the Fawcett (Patented) Construction to the one shown.

We feel it may be stated safely that when completed the Government Printing Office, at Washington, D. C., will be one of the most securely fireproof buildings of its class in the country; and further, it cannot be contradicted that a terra-cotta construction, properly designed to suit each particular case, composed of clay made porous, which burns at not less than 2500 degs. Fahr., has no superior at the present time.

The designs which were first recommended for acceptance by the government engineer were prepared by Mr. M. J. O'Meara, of the Fawcett Company, and were



SKETCHES SHOWING FLOOR CONSTRUCTION AND METHOD OF FIRE-PROOFING GIRDERS AS SUBMITTED BY THE FAWCETT COMPANY.

closely followed by the Government when making its own designs for the work.

Selected Miscellany.

NOTES FROM NEW YORK.

Nothing disturbs business in this country so much as the turbulence and excitement just preceding our presidential elections, and we are all glad that it is settled. Probably no class of men would have suffered more than

ST. PAUL'S CHURCH, CHICAGO. H. J. SCHLACKS, ARCHITECT.

General View looking from Communion Rail toward Organ Gallery.

A feature of this part of the church is the "sounding board" splay arch over the organ. This arch is also in common brick and will be decorated in color.

the architects, if the result had been different; for to my personal knowledge several large buildings, for which plans were prepared months ago, were not started until there was a surety of the continuance of present conditions.

The architects of New York formed a conspicuous element of the great sound money parade. They were led by Mr. Bruce Price, who made a dignified and able general.

A few weeks ago a terrific explosion shook the entire lower portion of New York. It was caused by a fire in the building of Tarrant & Co., a five-story warehouse designed some years ago by Mr. Henry Rutgers Marshall. A peculiar feature was that for ten minutes after the explosion pieces of wood and tin roofing (some sheets 2 ft. sq.) came sailing down apparently from the clouds, and landed, in some cases, on buildings and in the street almost a mile away.

An article recently published in an architectural magazine calls attention to a characteristic of New York domestic architecture, which is continually becoming more noticeable. It is becoming very common for the houses of well-to-do people, not merely on Fifth Avenue, but on the side streets, to be rebuilt according to an individual and often meritorious design. This will have a pleasing result in gradually doing away with the monotonous rows of brown stone houses, and occasionally sandwiching in here and there something upon which the eye can rest with a sense of relief.

ST. PAUL'S CHURCH, CHICAGO.

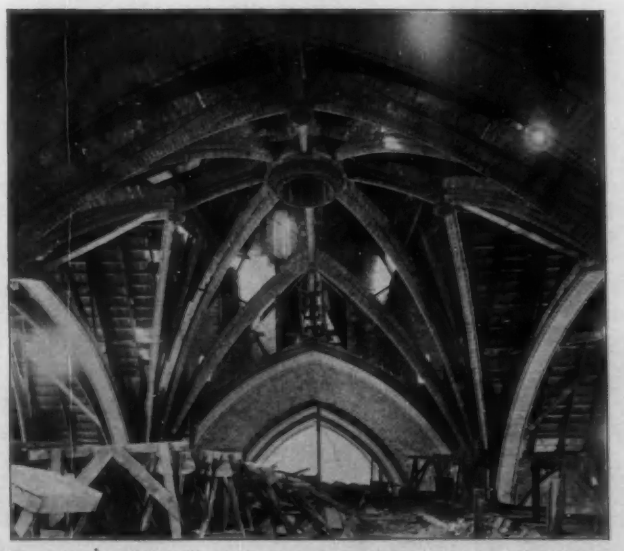
THE stranger in Chicago or the resident who fancies that the southwestern part of the city is wholly given over to manufacturing will be astonished by the new St. Paul's Roman Catholic Church, West 22d Place and Hoyne Avenue, Henry J. Schlacks, architect. It is constructed exclusively of vitrified clay. Even the window frames are of this material. The decorative sculptures are white terra-cotta. The altars, communion rail, pulpit, and front of the organ loft are of terra-cotta. Window washes and water drips are of brick, specially designed.

All the material is non-absorbent and, therefore, self-cleaning. The entire ceiling is of brick and tile vaulting. The keystones are terra-cotta, the ribs of the arches and groins of molded brick. Not only is there not an inch of timber in the structure, there is not even a nail.

The prevailing color is buff, exterior and interior, running up to a lighter tone within and down, where required by symphony, into a deep brown.

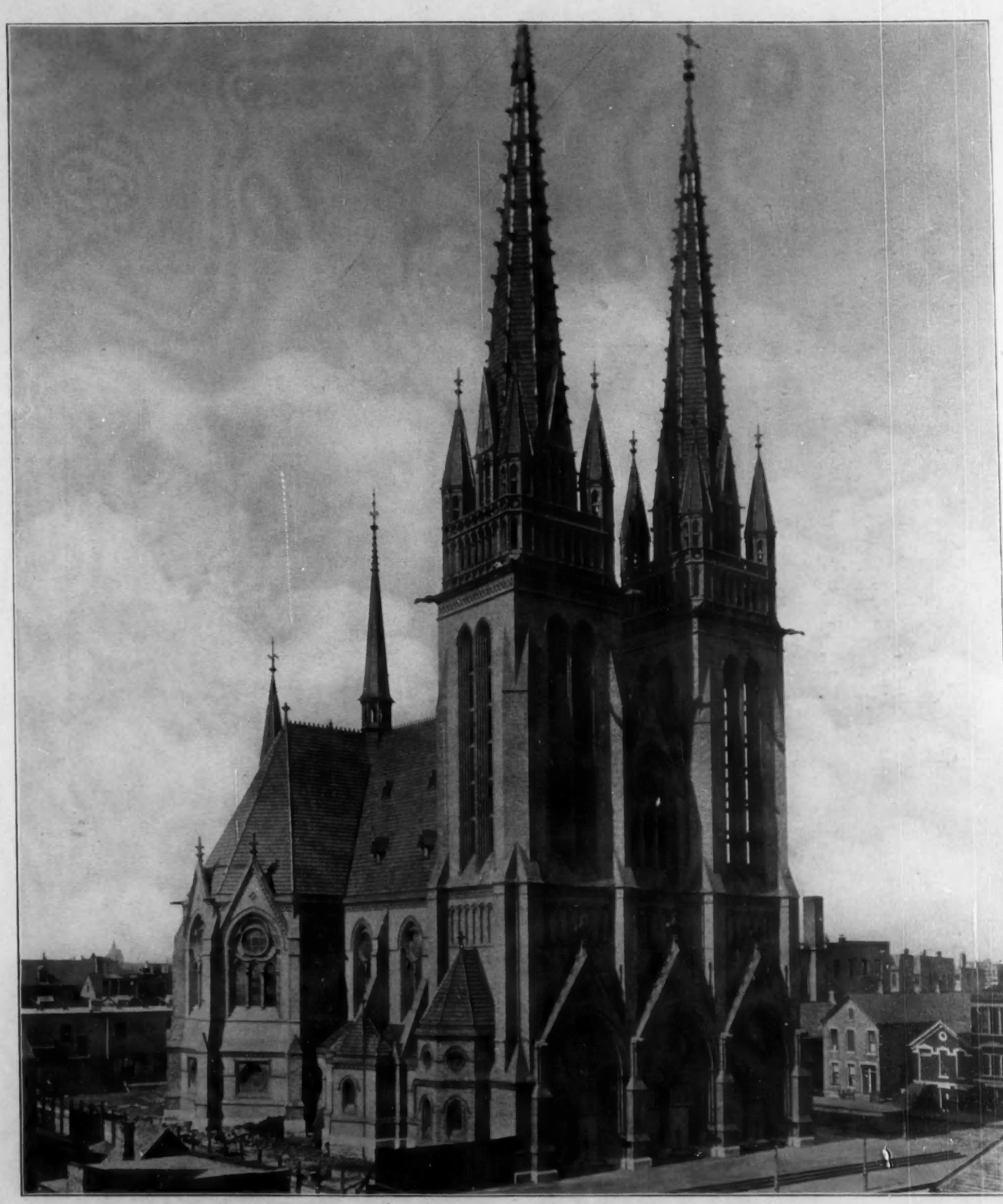
SOCIETY AND CLUB NEWS.

At a meeting held Oct. 19, 1900, the Memphis Architectural Club was fully organized, and the following officers elected to serve the ensuing year: Cyrus



ST. PAUL'S CHURCH, CHICAGO. H. J. SCHLACKS, ARCHITECT.

View of ribs of transept from top of scaffold after centering had been removed. Note the splay arch in back which forms triumphal arch of sanctuary. This arch has resting upon its haunches the two brick towers which flank the sanctuary.



ST. PAUL'S CHURCH, CHICAGO, ILL. HENRY J. SCHLACKS, ARCHITECT.

HOUSE, WASHINGTON, D. C.
C. B. Keferstein, Architect.

Johnson, president; W. J. Hanker, first vice-president; H. J. MacKenzie, second vice-president; M. H. Furbringer, secretary; Walk C. Jones, treasurer.

The Annual Architectural Exhibition of the T Square Club, of Philadelphia, will be held in the galleries of the Art Club, of Philadelphia, beginning Jan. 5, 1901 to January 19. Entries must be received not later than Nov. 21, 1900. Exhibits must be received not later than Dec. 5, 1900. Jury of Selection meets Dec. 15, 1900. Press view, Saturday, Jan. 5, 1901, 1 to 6 P. M. Opening reception, Saturday, Jan. 5, 1901, 8 to 11 P. M. Public exhibition from Sunday, January 6, to Saturday, Jan. 19, 1901, inclusive, 10 A. M. to 6 P. M., 8 to 10 P. M. Sundays, 10 A. M. to 6 P. M. Exhibition closed all day and evening January 8, 12, and 14. Admission by ticket from any member of the T Square Club or of the Art Club. Exhibits discharged Monday, Jan. 21, 1901, when they will be returned to the owners, or will be forwarded to New York or Toronto (subject to selection by committees representing these exhibitions), as may be directed on the entry slip.

The following-named gentlemen constitute the Jury of Selection and Hanging Committee: Adin B. Lacey, Herbert C. Wise, Charles Z. Klauder, William C. Hays, John Galen Howard, New York; George Bispham Page, Gilbert L. Hindermeyer, Lawrence Visscher Boyd, Philadelphia; J. Randolph Coolidge, Jr., Boston; and Cass Gilbert, New York and St. Paul.

The Chicago Architectural Club has established an annual scholarship prize of $250. The fund so provided is to assist the winner in defraying the expenses of a European trip devoted to architectural study.

HOUSE, WASHINGTON, D. C.
Harvey Page, Architect.

OLD GATEWAY, CHARLESTON, S. C.

The prize will be awarded annually to the winner of a series of monthly competitions.

The subject of the competition for the current club year will be the residence of an American minister in an important foreign city, and the problem will be subdivided into five parts or stages, each constituting a monthly problem in design.

The Thirty-fourth Annual Convention of the American Institute of Architects will be held in Washington, D C., Dec. 12, 13, 14, and 15, 1900.

In addition to the reports of the standing and special committees, papers prepared by the following-named members will be read: W. L. B. Jenney, C. Howard Walker, Edgar V. Seeler, H. K. Bush-Brown, Frederick Law Olmsted, Jr., Walter Cook, R. Clipston Sturgis,

John Galen Howard, A. D. F. Hamlin, K. Honda, and Joseph C. Hornblower. The headquarters of the convention will be at the Arlington Hotel.

At the monthly meeting of the Executive Board of the Architectural League of America, held November 6, the members of the committees on "Ethics and Competition Code" and "Current Club Work" were appointed, thus completing the standing committees of the league.

The members of the standing committees and the organizations to which they belong are as follows: "Ethics and Competition Code." The Architectural League of New York: Chairman, Walter T. Owen, Julius F. Harder, Percy Griffin. "Current Club Work.' The St. Louis Architectural Club: Chairman E. J. Russell, E. G. Garden, W. B. Ittner. "Exhibition Circuit." The Cleveland Architectural Club: Chairman, Victor E. Rondel, Charles S. Schneider, Wilbur M. Hall. "Foreign Exhibit." The T Square Club of Philadelphia: Chairman, Lawrence V. Boyd, Louis Calvert, Gilbert L. Hindermeyer. "Education." Chairman, John Watrous Case, Detroit Architectural Club; Albert Kelsey, T Square Club, Philadelphia; Prof. J. M. White, The Architects' Club, University of Illinois, Urbana, Ill. "Publicity and Promotion." The Chicago Architectural Club: Chairman, Henry K. Holsman, William K. Fellows, Walter B. Griffin.

The members of the special committee on "Municipal Improvement" are the following: Chairman, H. K. Bush-Brown, Architectural League of New York; John M.

STABLES, BELLE ISLE PARK, DETROIT, MICH.
MASON & RICE, ARCHITECTS.

Roofed with Ludowici Roofing Tile.

ST. MICHAEL'S CHURCH, PHILADELPHIA, PA.
EDWIN H. DURANG, ARCHITECT.

Faced with "Ironclay" fire flashed mottled brick, made by The Columbus Face Brick Company and supplied by O. W. Ketcham, Philadelphia Agent.

ENTRANCE, HOUSE AT HAMILTON, MASS.

TERRA-COTTA ARCHES, ENTRANCE OF POST-OFFICE,
WASHINGTON, D. C.

Work executed by the Central Fire-proofing Company.

Carrere, Beaux Arts Society, New York; F. W. Striebinger, Cleveland, Ohio; Dwight H. Perkins, Chicago, Ill.; Edgar V. Seeler, Philadelphia, Pa.; Charles M. Robinson, Rochester, N. Y.; Mr. Howe, Boston, Mass.; George Cary, Buffalo, N. Y.; Edwin Henri Oliver, New Orleans, La.

Mr. Victor E. Rondel, chairman of the committee on "Exhibition Circuit" reported that an exhibition circular had been sent to all the club who were to receive the circuit drawings, and that the dates of exhibition had been scheduled as follows: Philadelphia, January 5–21; Cleveland, January 28 — February 9; New York, February 16 — March 9; Washington, March 15–21; Chicago, March 28 — April 15; Urbana, April 20–27; St. Louis, May 6–20; Cincinnati, May 27 — June 7; Pittsburgh, June 13–20; Toronto, June 15 — July 1.

HOTEL "LORRAINE," FIFTH AVENUE AND 45TH STREET, NEW YORK CITY.
JEREMIAH O'ROURKE, ARCHITECT.
Built of cream white bricks, made by Sayre & Fisher Company.

NEW BOOKS.

CHURCHES AND CHAPELS; THEIR ARRANGEMENTS, CONSTRUCTION, AND EQUIPMENT. — By F. E. Kidder. Wm. T. Comstock, New York. 1 vol., oblong; 8vo. Cloth, $3.00.

This work is much in line with the books on Building Construction by the same author, and devotes a large amount of space to constructive features, although it does not neglect design, but gives over fifty plates of plans, elevations, and perspective views of modern churches, which have been erected by himself and other prominent church architects.

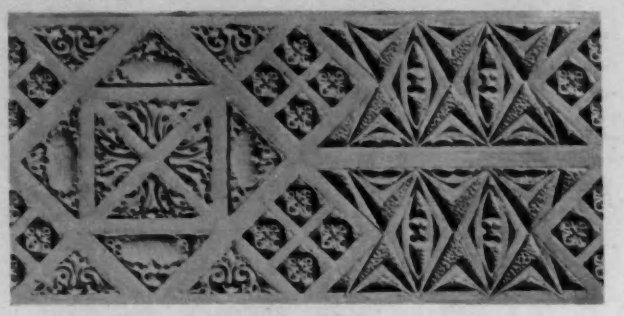
FURNITURE DESIGNING AND DRAUGHTING. — By Alvan Crocker Nye, Ph.B. Wm. T. Comstock, New York, N. Y. One octavo vol. Cloth, $2.00.

Any one who has made an attempt at furniture designing realizes how difficult it is to obtain the data necessary for beginning work, unless there is a furniture shop close at hand. Many questions of dimensions, the relation of the various parts to each other, as well as the limitations due to construction, present themselves at once. To answer these requires considerable time and study. If the book that now appears under the title given above is at hand, how much of this time may be saved.

To the architect who occasionally must give some consideration to furniture, the tables of dimensions, if not the entire work, will be a great aid. In fact, this is a

CARTOUCHE AND FESTOONS BY CLINTON & RUSSELL, ARCHITECTS.
Perth Amboy Terra-Cotta Company, makers.

DETAIL BY CLINTON & RUSSELL, ARCHITECTS.
New York Architectural Terra-Cotta Company, makers.



DETAIL BY J. E. R. CARPENTER, ARCHITECT.
Excelsior Terra-Cotta Company, makers.

serviceable book for every one who has to do with drawings for furniture.

THEATERS: THEIR SAFETY FROM FIRE AND PANIC, THEIR COMFORT AND HEALTHFULNESS.—By William Paul Gerhard, C. E. Bates & Guild Company, Boston, Mass. Cloth, $1.00.

The author takes up in detail the question of safety, and shows means by which present unsatisfactory condi-

DETAIL.
Northwestern Terra-Cotta Company, makers.

tions may be remedied, and discusses the following topics: Means of escape; measures tending to prevent fire and for quickly detecting and signaling one which may occur; protection of the audience and stage personnel from fire and smoke; localizing and restricting fire; means for saving life, fighting fire, and guarding against panic. Under comfort and sanitation the following topics are treated in like manner: The unsanitary condition of theaters; ventilation, heating, and lighting; floors, floor coverings, walls, ceilings, and furniture; dressing

PANEL BY GEORGE B. ROGERS, ARCHITECT.
Conkling-Armstrong Terra-Cotta Company, makers.

rooms; drainage, plumbing, and water supply; removal of refuse; cleaning, dusting, and sweeping; and periodical sanitary inspection.

THE "Year Book" of the School of Architecture of the University of Pennsylvania appeals to us in a most pleasant manner. There is no city in the country

PANEL BY J. T. W. JENNINGS, ARCHITECT.
American Terra-Cotta and Ceramic Company, makers.

that is any more keenly alive to the possibilities of architecture as a fine art than Philadelphia; and the recent remarkable development in appreciative art which the city has experienced has been so closely allied with the growth of the School of Architecture in the University of Pennsylvania that the two can fairly claim a relationship. The illustrations in the "Annual" are made up of photographic reproductions of the work of the students, and show a very high grade of class work. We appreciate that the designs shown are undoubtedly picked from

CAPITAL.
New Jersey Terra-Cotta Company, makers.

the whole work of the college, but an architectural department which can show such fine pickings speaks for itself.

MISCELLANEOUS ITEMS.

The architectural faience for the interiors and exteriors of all the elevated stations in Boston is being furnished by the Grueby Faience Company.

The Hartford Faience Company is at present en-

gaged in turning out a number of large orders for their terra-vitræ tiles for wall work.

Celadon Roofing Tile are being supplied by Charles Bacon, Boston agent, on the following new contracts in Boston: Trinity Church, Shepley, Rutan & Coolidge, architects; chapel of Immaculate Conception, J. A.

DETAIL BY BARNEY & CHAPMAN, ARCHITECTS.
Atlantic Terra-Cotta Company, makers.

McGinty, architect; residence for Mrs. John L. Gardner, W. T. Sears, architect.

Sayre & Fisher Company's brick are being supplied by Charles Bacon, Boston agent, on the following new contracts: Residence, Boston, J. T. Kelley, architect; pumping station, Lincoln, Mass., and bank building, Boston, George F. Newton, architect; armory, Medford, Mass., Shepley, Rutan & Coolidge, architects.

Charles Bacon has been appointed Boston representative of Sears, Humbert & Co., who are sole agents for the La Farge and Whitehall Portland cements.

OLD GATEWAY, CHARLESTON, S. C.

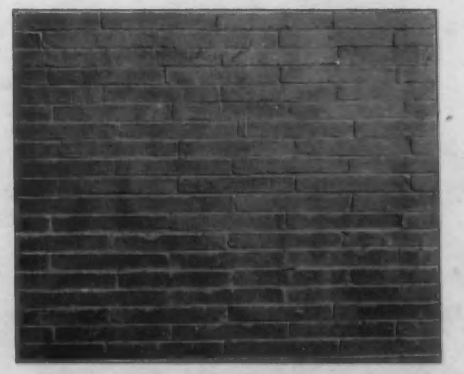
The First Universalist Church, of Buffalo, Green & Wicks, architects, which is illustrated in the Plate Form of this issue, is built of a light-colored Pompeian brick laid up in Akron cement, manufactured by the Union Akron Cement Company, Buffalo. There is no oxide of iron or manganese in this cement, and it will not color the whitest marble. It is also very strong, and suitable for any class of stone, marble, or brickwork.

The Columbus Brick and Terra-Cotta Company report an unusually good business for this time of the year. Among the contracts on which their brick will be furnished are: Lynchburg National Bank Building, Lynchburg, Va., E. G. Fry, architect; Boys' Industrial School, Lancaster, Ohio, Richards, McCarty & Bulford, architects; office building, Detroit, Mich., Donaldson & Meier, architects; Pillsbury's Home for Girls, Minneapolis, Minn., C. R. Aldrich, architect; hotel, Jackson, Ohio, Yost & Packard, architects; chapel, Parkersburg, W. Va., H. R. Warne, architect; the Connecticut Mutual Insurance Building, Hartford, Conn.; office building for Senator Clark at Butte, Mont.; and a church at Norfolk, Va.

CROWN MOULD, MAIN CORNICE.
GEO. S. MILLS, ARCHITECT.
Indianapolis Terra-Cotta Company, makers.

The Columbus Brick and Terra-Cotta Company, of Columbus, Ohio, has just issued a catalogue, which has artistic as well as practical merit that is sure to recommend it to the attention of architects and builders alike. Work by D. H. Burnham & Co., Henry Ives Cobb, Yost & Packard, R. H. Robertson, Jenney & Mundie, Long & Kees, Richards, McCarty & Bulford, and several other well-known firms is illustrated, in addition to drawings of more than two hundred shape and ornamental bricks. Additional value is given the illustrations of buildings by a statement of the kind and color of the bricks used in each operation. Such publications as this are not mere advertisements: they are works of value because they contain reliable information which does not naturally find its way into other channels.

The accompanying illustration shows a section of wall constructed of the new Roman shape, red-face brick that Messrs. Fiske & Co., Boston, are now placing upon the market. This brick is made by the "mud" or plastic process and is, we believe, the first Roman shape red brick, made in this manner, ever put upon sale. In texture it resembles somewhat the "Harvard" brick, having a slightly rough appearance, producing in the wall a soft, beautiful tone. We have received a number of inquiries from architects from all sections of the country for a brick of this nature, and we are pleased to announce that Messrs. Fiske & Co. have met the demand. Further information will be given by applying to Fiske & Co., 166 Devonshire Street, Boston, Mass.



FIRST UNIVERSALIST CHURCH, BUFFALO, N. Y.

GREEN & WICKS, ARCHITECTS.

FRONT VIEW.

HOUSE AT HAMILTON, MASS.

HALL.

HALL.

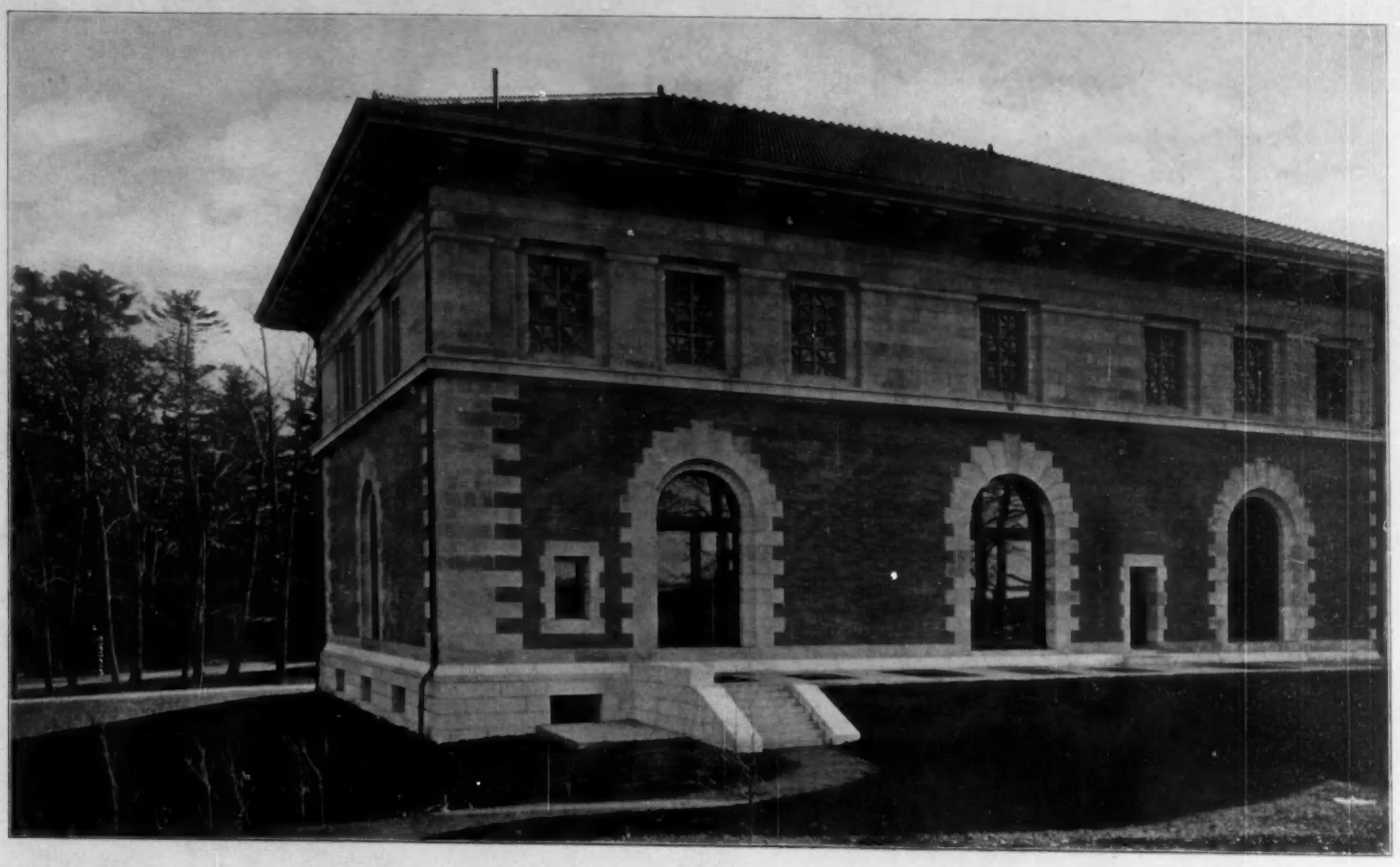
DINING ROOM.

LOUIS XVI. ROOM.

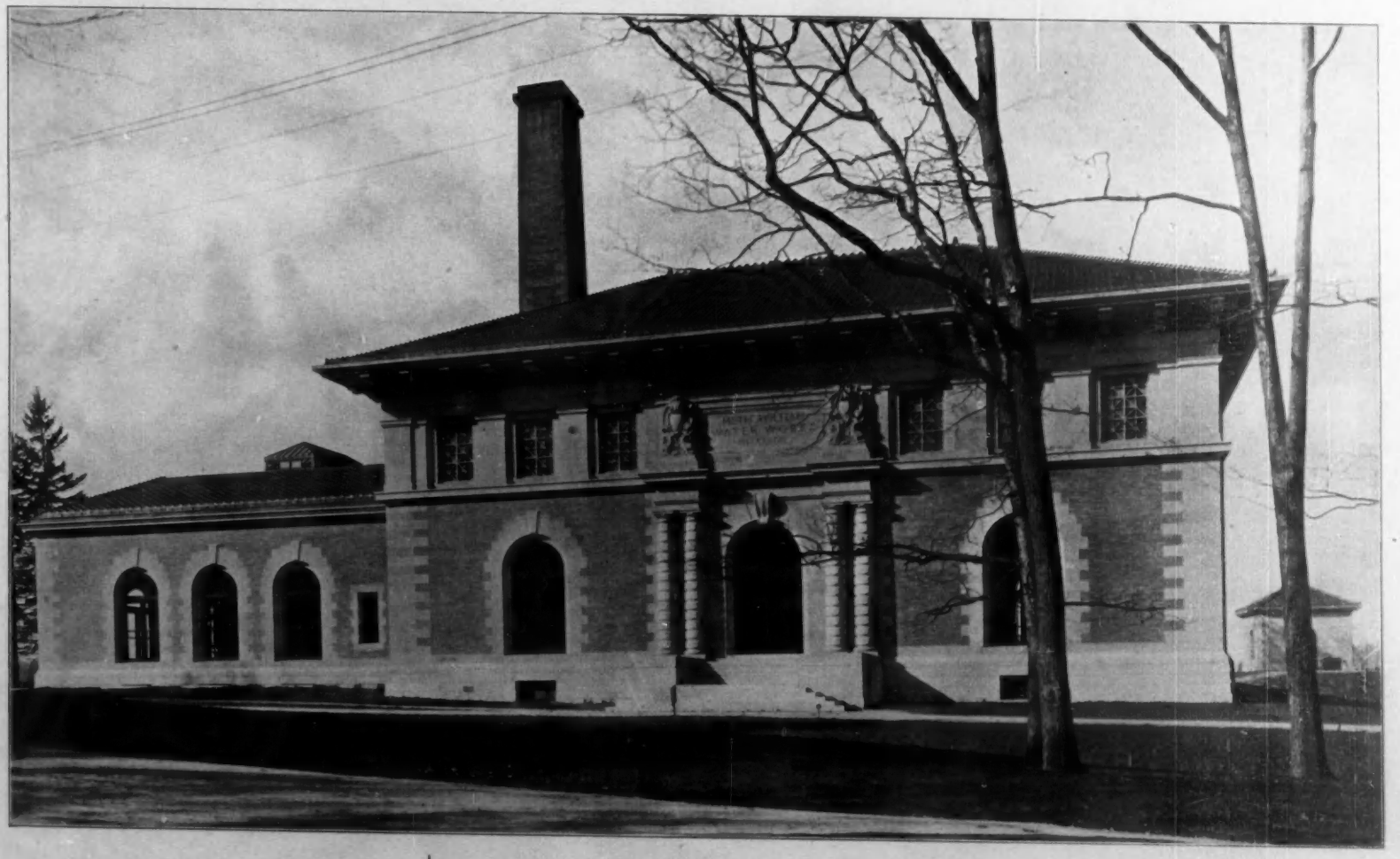
HOUSE AT HAMILTON, MASS.

GARDEN VIEW.

HOUSE AT HAMILTON, MASS.



REAR.



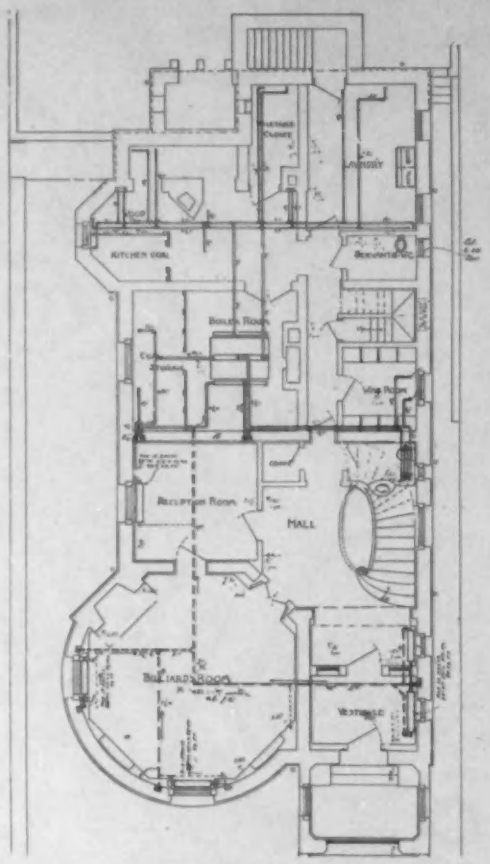
FRONT.

PUMPING STATION, SPOT POND, MASS.

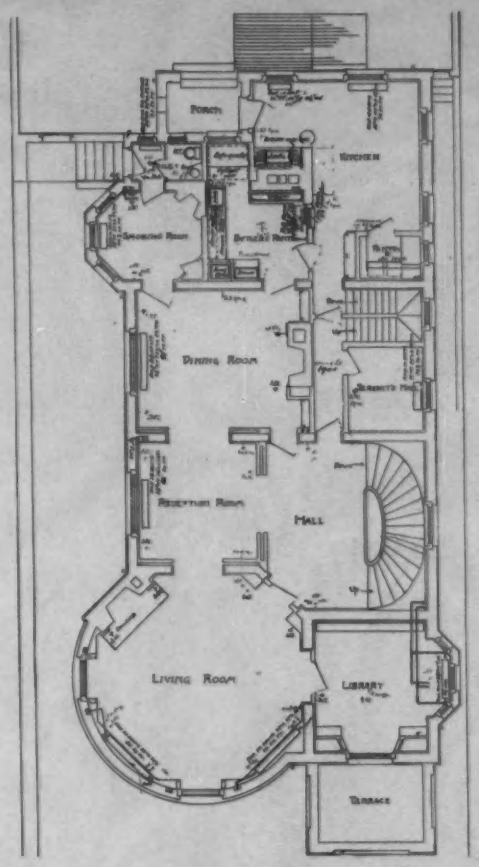
SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS.

←MEMORIAL GATEWAY, CLASS 1873. UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA.
COPE & STEWARDSON AND F. F. MANN, ASSOCIATED ARCHITECTS.

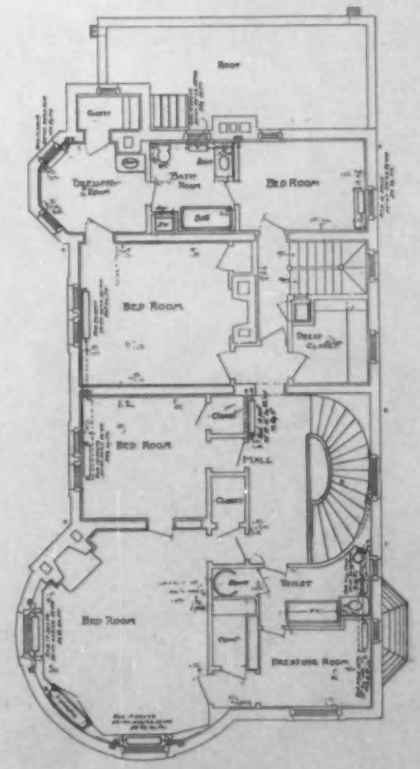
THE BRICKBUILDER.
VOL. 9. NO. 11. PLATE 81.



GROUND FLOOR.

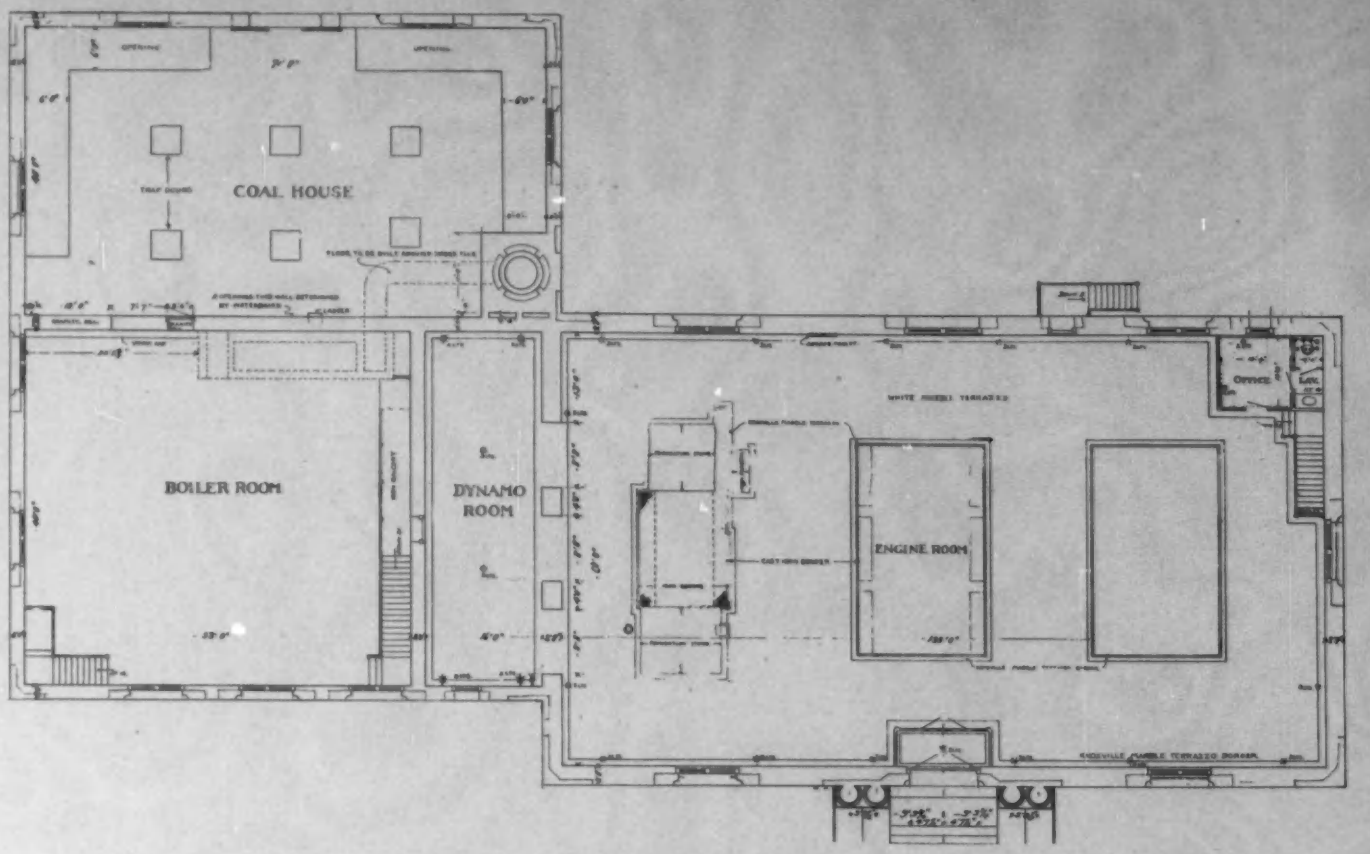


FIRST FLOOR.

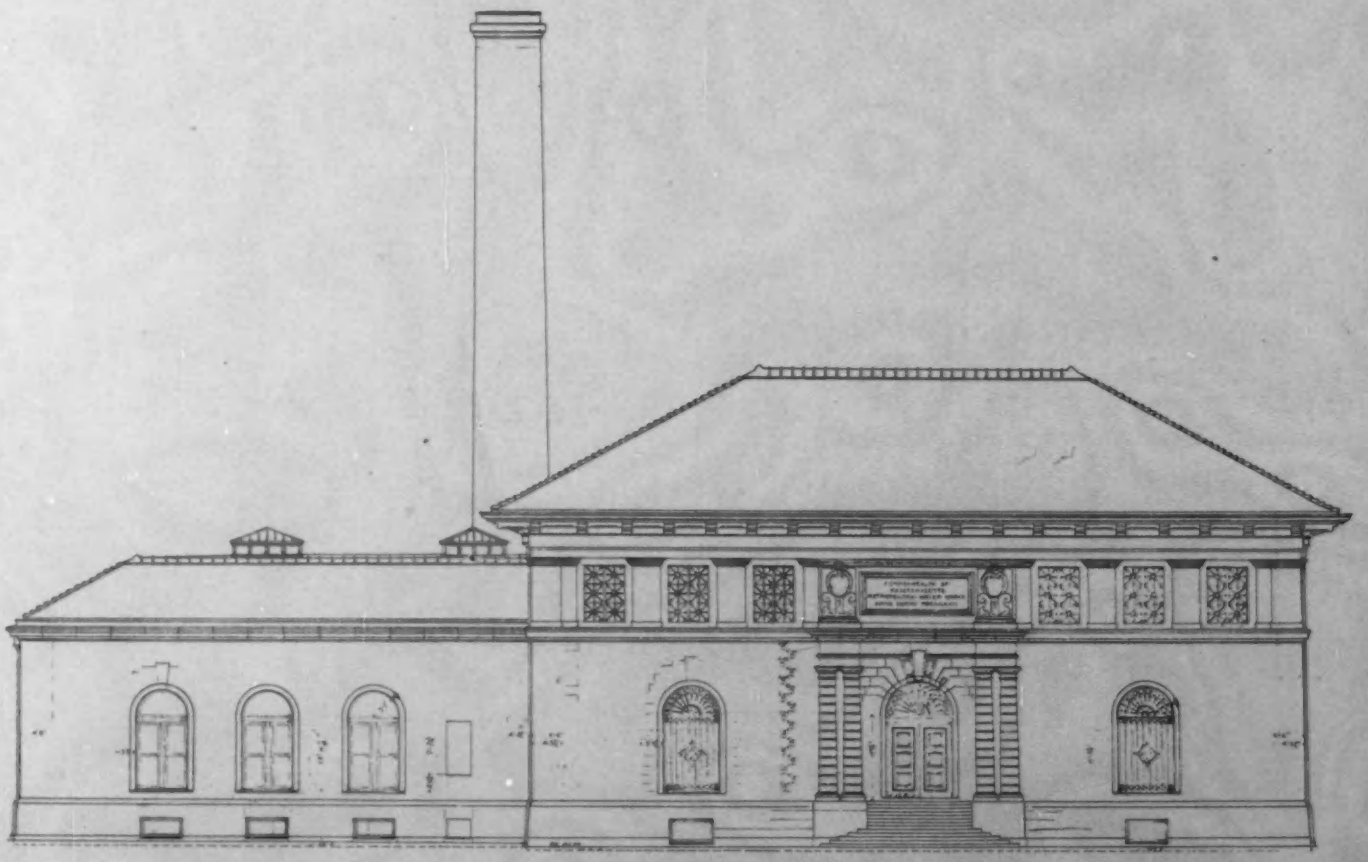


SECOND FLOOR.

HOUSE AT BUTTE, MONTANA.
LORD, HEWLETT & HULL, ARCHITECTS.



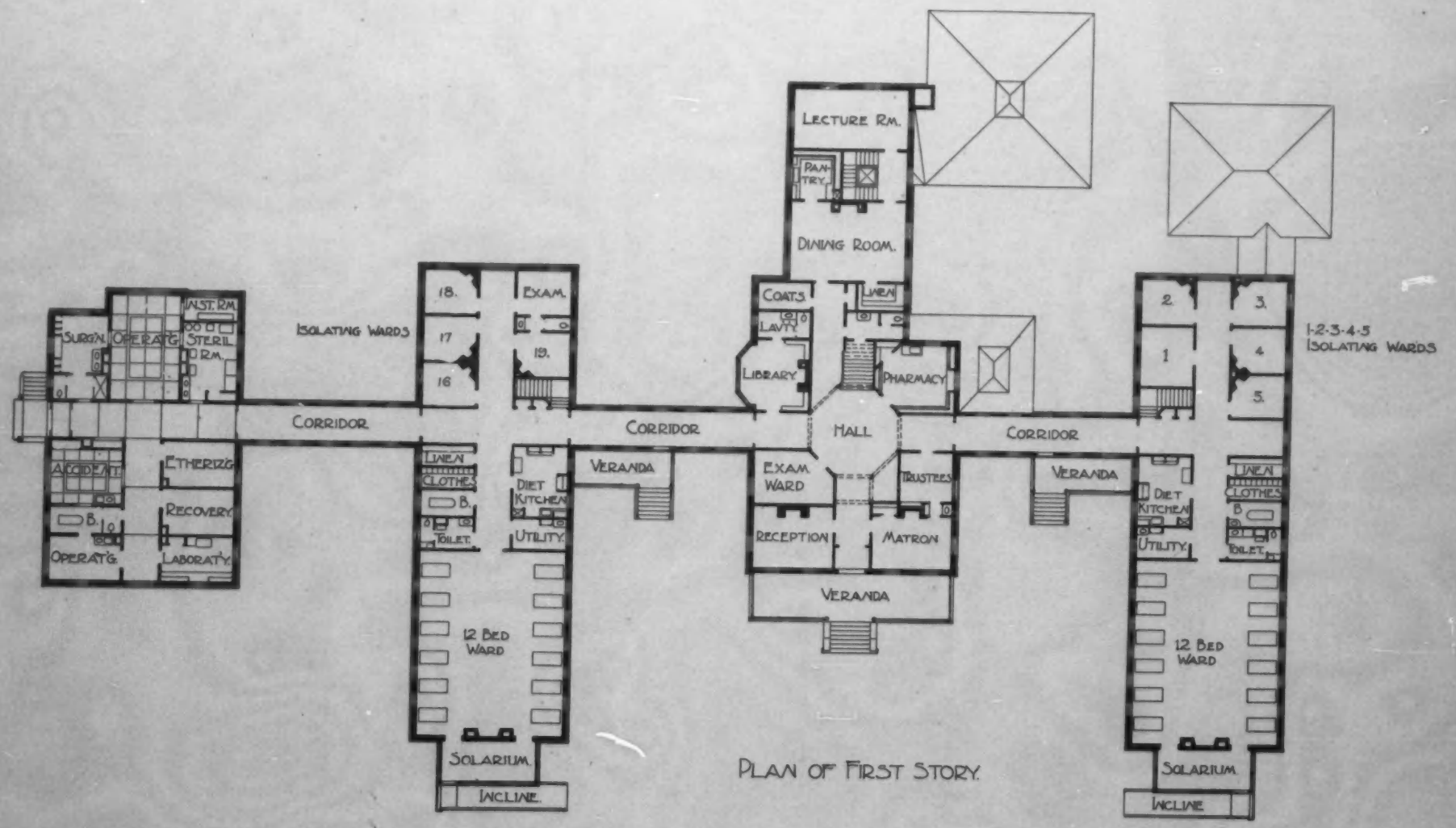
PLAN.



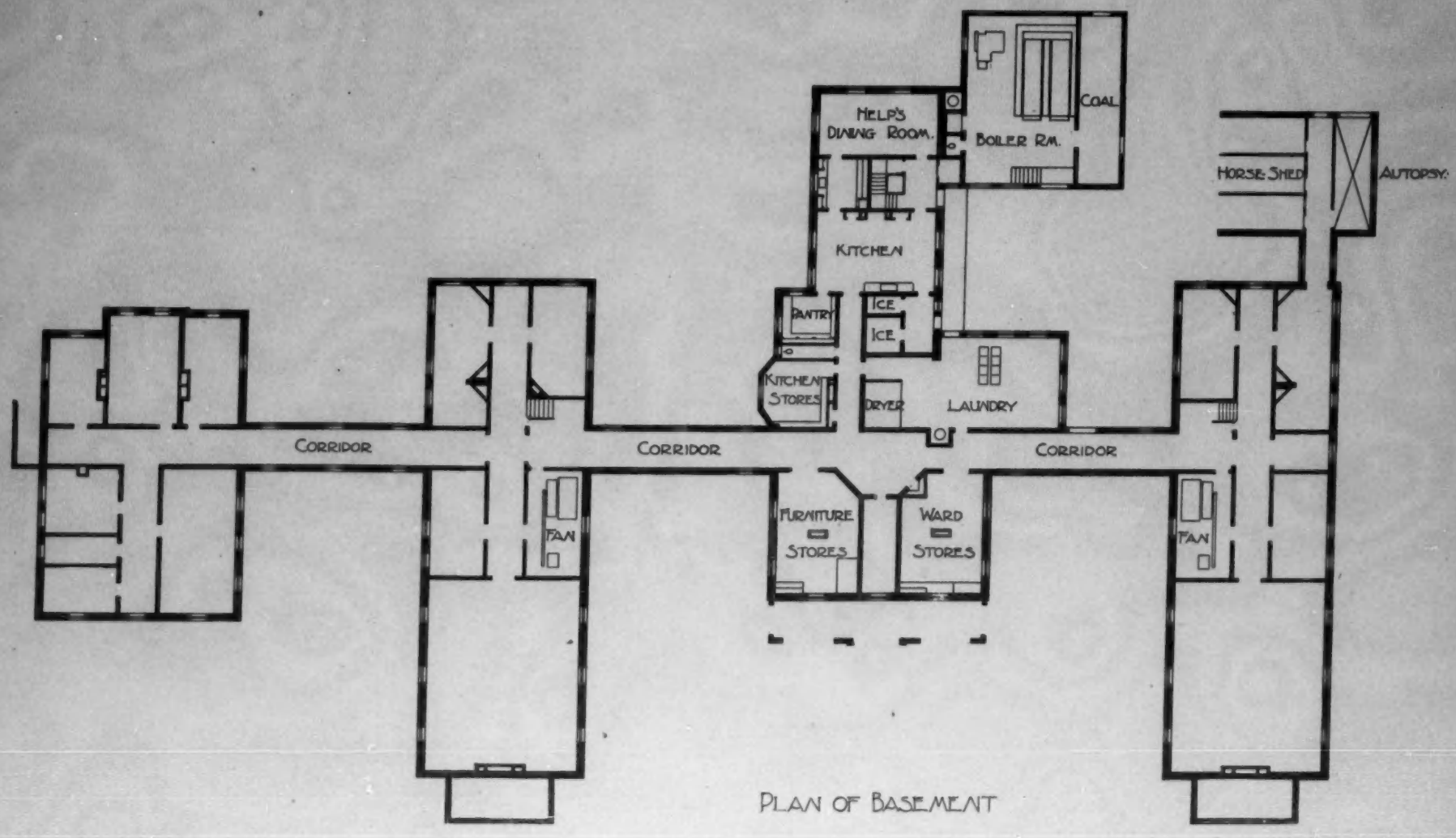
FRONT ELEVATION

PUMPING STATION, SPOT POND, MASS.

SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS.



THE BRICK
VOL. 9, NO. 11.

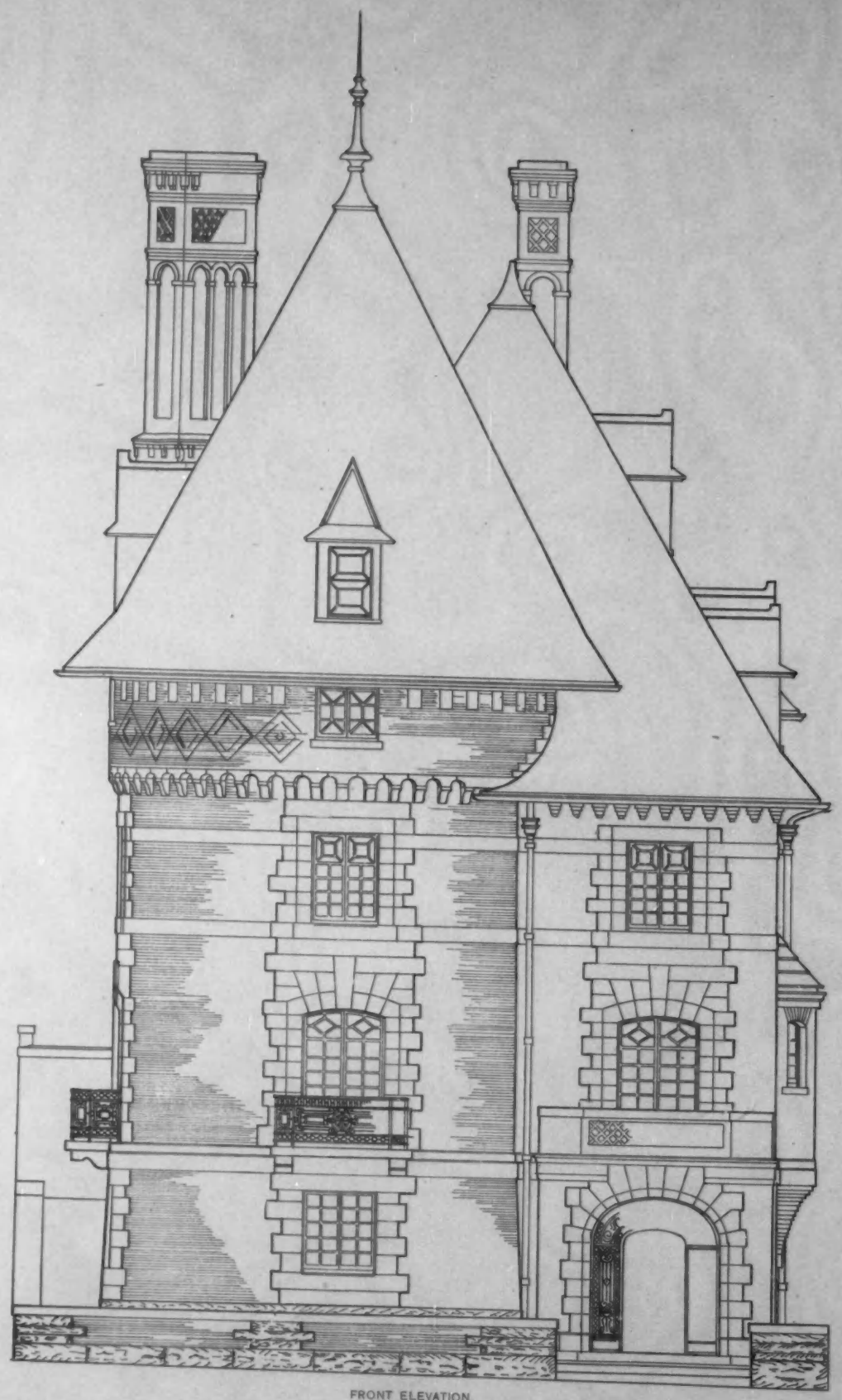


PLAN OF BASEMENT

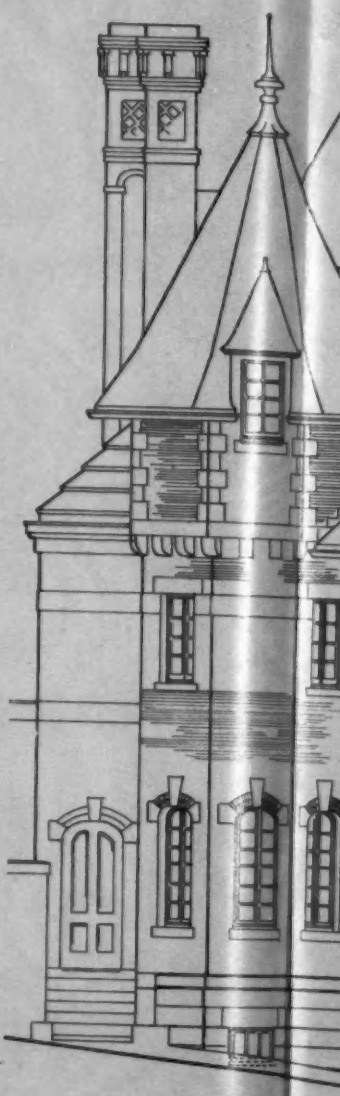
BURBANK HOSPITAL, FITCHBURG, MASS.

KENDALL, TAYLOR & STEVENS, ARCHITECTS.

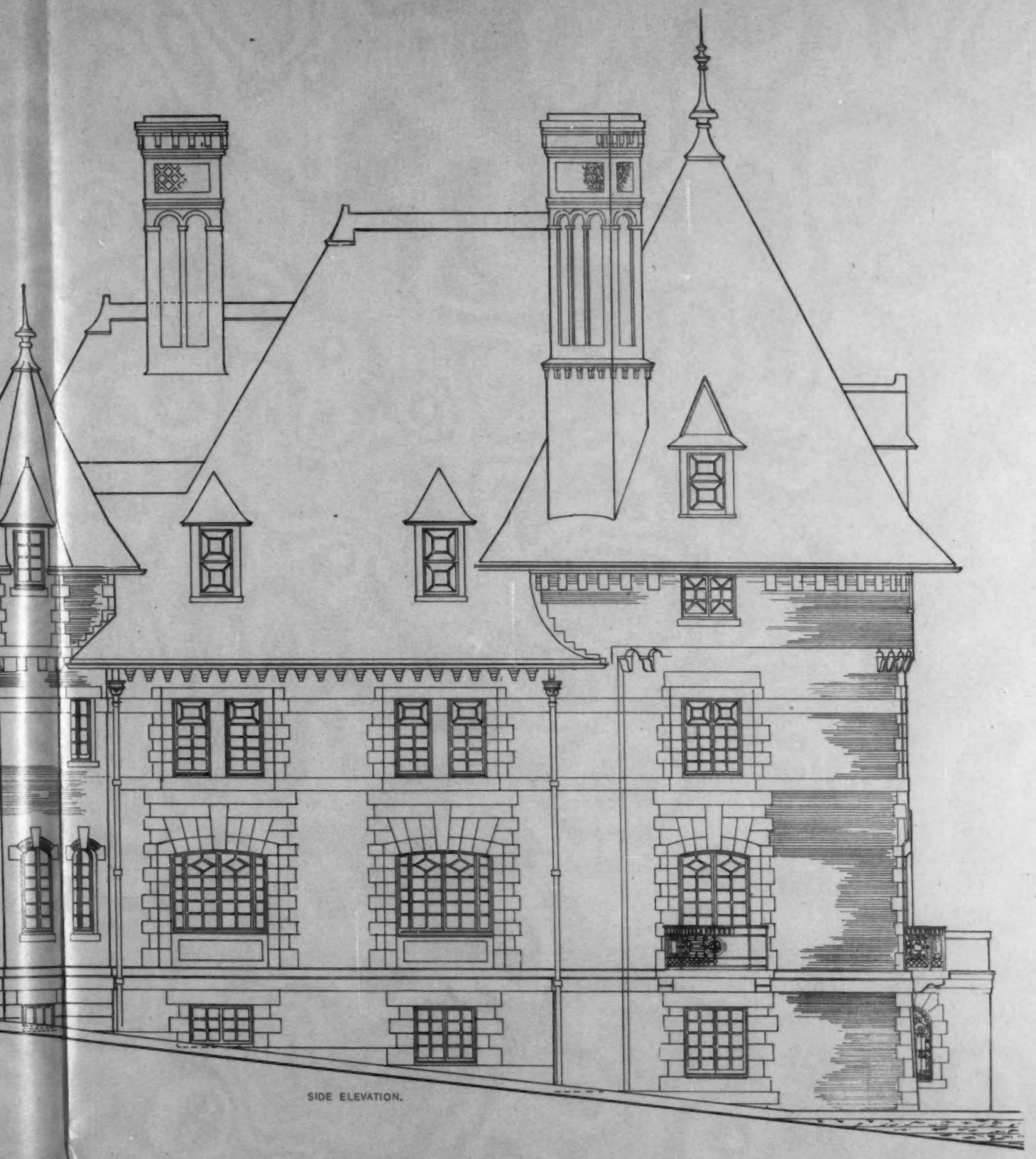
148.



FRONT ELEVATION.



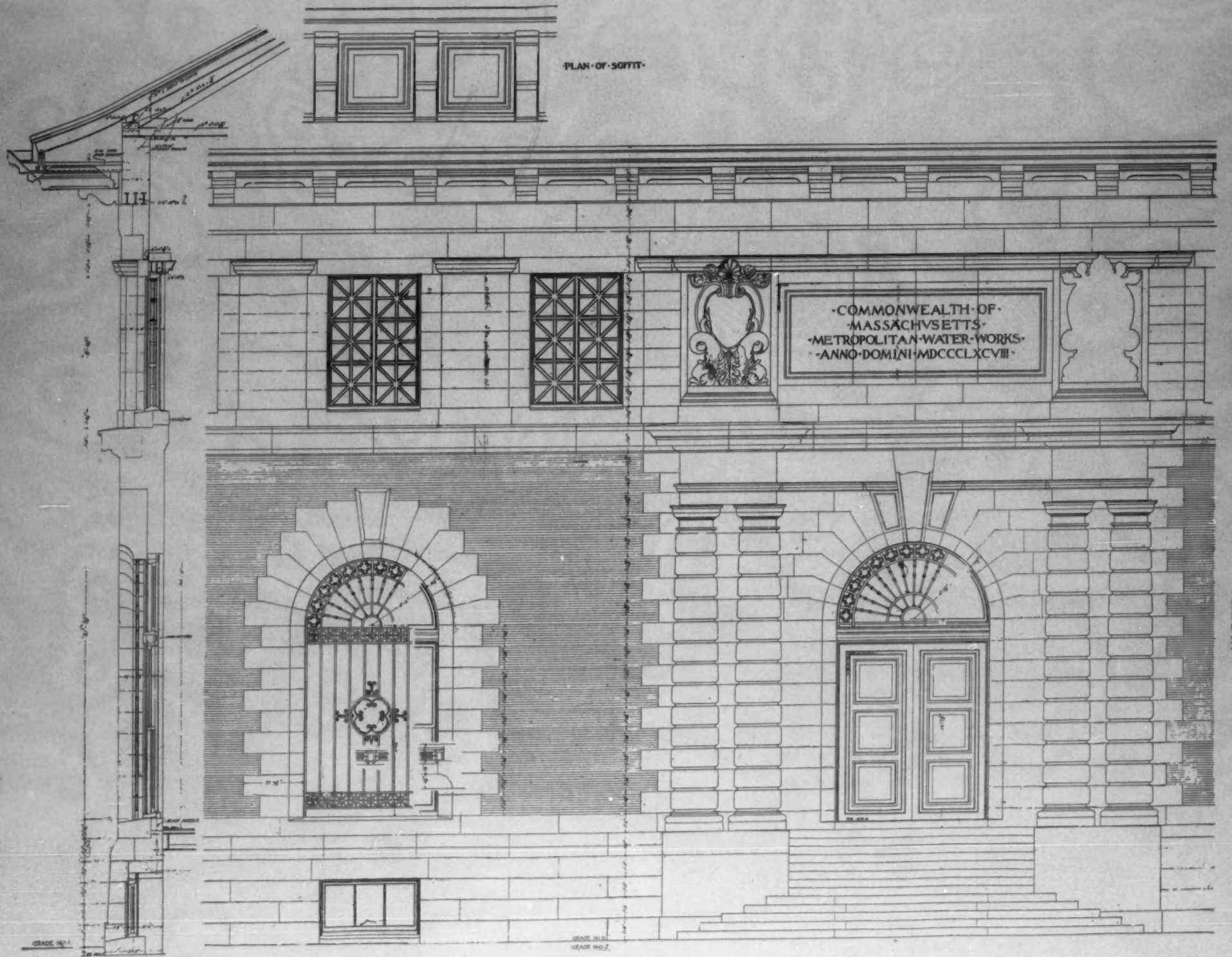
HOUSE AT BUTTE, M
LORD, HEWLETT & HULL,



SIDE ELEVATION.

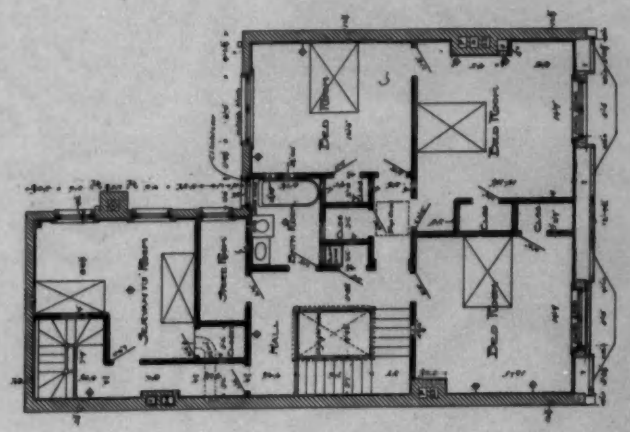
E AT BUTTE, MONTANA.

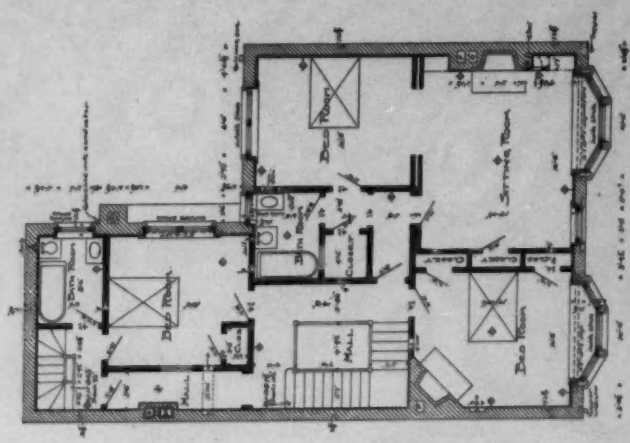
, HEWLETT &HULL, ARCHITECTS.

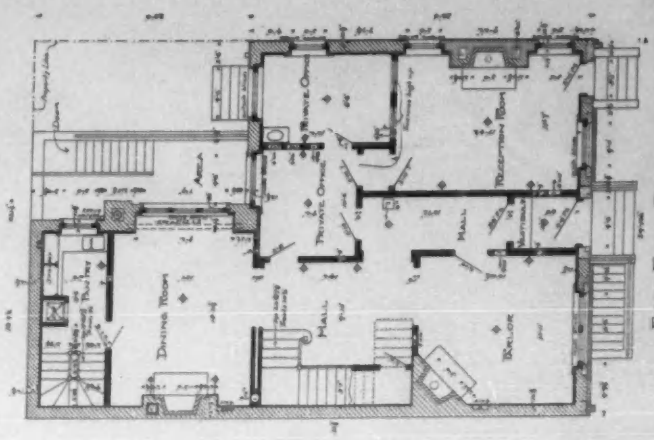


DETAIL, PUMPING STATION, SPOT POND, MASS.

SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS.







RESIDENCE AND OFFICE FOR PHYSICIAN, HARRISBURG, PA.

RANKIN & KELLOGG, ARCHITECTS.